

Nikon

DIGITAL CAMERA

D500

Menu Guide



This manual details menu options and provides information on accessories and connecting the camera to other devices.


- Read this manual thoroughly before using the camera.
- After reading this manual, keep it in a readily accessible place for future reference.

En



Table of Contents

Menu Guide	10
Defaults	10
▶ The Playback Menu: Managing Images	20
Delete	21
Playback Folder	21
Hide Image	22
Playback Display Options	23
Copy Image(s)	24
Image Review	28
After Delete	28
After Burst, Show	29
Auto Image Rotation	29
Rotate Tall	30
Slide Show	30
Select to Send to Smart Device	32
📷 The Photo Shooting Menu: Shooting Options	33
Photo Shooting Menu Bank	34
Extended Photo Menu Banks	36
Storage Folder	36
File Naming	39
Primary Slot Selection	40
Secondary Slot Function	40
Flash Control	41
Choose Image Area	45




Image Quality.....	46
Image Size	47
NEF (RAW) Recording.....	48
ISO Sensitivity Settings.....	49
White Balance	50
Set Picture Control	51
Manage Picture Control	52
Color Space	52
Active D-Lighting.....	53
Long Exposure NR (Long Exposure Noise Reduction).....	53
High ISO NR	54
Vignette Control	54
Auto Distortion Control.....	55
Flicker Reduction	55
Auto Bracketing Set.....	56
Multiple Exposure	56
HDR (High Dynamic Range).....	57
Interval Timer Shooting	58
▶ The Movie Shooting Menu: Movie Shooting Options	59
Reset Movie Shooting Menu	60
File Naming.....	60
Destination	60
Choose Image Area.....	60
Frame Size/Frame Rate.....	61
Movie Quality	61
ISO Sensitivity Settings.....	62
White Balance	63

Set Picture Control.....	63
Manage Picture Control.....	63
Active D-Lighting	63
High ISO NR.....	64
Flicker Reduction.....	64
Microphone Sensitivity	65
Frequency Response.....	65
Wind Noise Reduction.....	66
Time-Lapse Movie.....	66
Electronic VR.....	66
 Custom Settings: Fine-Tuning Camera Settings.....	67
Custom Settings Bank	71
a: Autofocus.....	73
a1: AF-C Priority Selection.....	73
a2: AF-S Priority Selection	74
a3: Focus Tracking with Lock-On.....	75
a4: 3D-Tracking Face-Detection	76
a5: 3D-Tracking Watch Area	76
a6: Number of Focus Points	76
a7: Store by Orientation.....	77
a8: AF Activation.....	78
a9: Limit AF-Area Mode Selection.....	79
a10: Autofocus Mode Restrictions	79
a11: Focus Point Wrap-Around	80
a12: Focus Point Options.....	81
a13: Manual Focus Ring in AF Mode	82

b: Metering/Exposure	83
b1: ISO Sensitivity Step Value.....	83
b2: EV Steps for Exposure Cntrl	83
b3: Exp./Flash Comp. Step Value	83
b4: Easy Exposure Compensation	84
b5: Matrix Metering	85
b6: Center-Weighted Area	85
b7: Fine-Tune Optimal Exposure	85
c: Timers/AE Lock	86
c1: Shutter-Release Button AE-L.....	86
c2: Standby Timer	86
c3: Self-Timer	87
c4: Monitor off Delay	87
d: Shooting/Display.....	88
d1: CL Mode Shooting Speed.....	88
d2: Max. Continuous Release	88
d3: ISO Display	88
d4: Sync. Release Mode Options	89
d5: Exposure Delay Mode	89
d6: Electronic Front-Curtain Shutter.....	89
d7: File Number Sequence	90
d8: Viewfinder Grid Display	91
d9: LCD Illumination	91
d10: Optical VR	92

e: Bracketing/Flash	93
e1: Flash Sync Speed.....	93
e2: Flash Shutter Speed	94
e3: Exposure Comp. for Flash	94
e4: Auto  ISO Sensitivity Control	95
e5: Modeling Flash.....	95
e6: Auto Bracketing (Mode M).....	96
e7: Bracketing Order	96
f: Controls	97
f1: Custom Control Assignment.....	97
f2: Multi Selector Center Button	109
f3: Shutter Spd & Aperture Lock	111
f4: Customize Command Dials	111
f5: Multi Selector.....	114
f6: Release Button to Use Dial.....	114
f7: Reverse Indicators.....	115
f8: Live View Button Options.....	115
f9:  Switch.....	115
f10: Assign MB-D17 Buttons.....	116
g: Movie.....	119
g1: Custom Control Assignment	119

Y The Setup Menu: Camera Setup.....	124
Format Memory Card	125
Language.....	125
Time Zone and Date	126
Monitor Brightness	127
Monitor Color Balance	128
Virtual Horizon.....	129
Information Display	130
AF Fine-Tune	131
Non-CPU Lens Data	132
Clean Image Sensor	133
Lock Mirror up for Cleaning	133
Image Dust Off Ref Photo	134
Image Comment.....	136
Copyright Information.....	137
IPTC.....	138
Beep.....	141
Touch Controls	142
HDMI	142
Location Data.....	143
Wireless Remote (WR) Options.....	144
Assign Remote (WR) Fn Button	145
Airplane Mode	145
Connect to Smart Device.....	146
Send to Smart Device (Auto)	147

Wi-Fi	147
Bluetooth	148
Network	148
Eye-Fi Upload.....	149
Conformity Marking	150
MB-D17 Battery Type.....	151
Battery Order	152
Battery Info	153
Slot Empty Release Lock.....	154
Save/Load Settings.....	155
Reset All Settings.....	158
Firmware Version	158
 The Retouch Menu: Creating Retouched Copies.....	159
NEF (RAW) Processing	162
Trim	164
Resize	165
D-Lighting.....	168
Red-Eye Correction.....	169
Straighten	169
Distortion Control	170
Perspective Control	171
Filter Effects.....	172
Monochrome	173
Image Overlay	174
Edit Movie	177
Side-by-Side Comparison	177
 My Menu/ Recent Settings	179

Exposure Program	184
Connections	185
Installing ViewNX-i	185
Copying Pictures to the Computer	186
Ethernet and Wireless Networks	189
Printing Photographs.....	191
Viewing Photographs on TV	194
Other Accessories.....	197
Attaching a Power Connector and AC Adapter.....	205

Menu Guide

Defaults

The default settings for the options in the camera menus are listed below.

■ Playback Menu Defaults

Option	Default
Playback folder (☞ 21)	All
Image review (☞ 28)	Off
After delete (☞ 28)	Show next
After burst, show (☞ 29)	Last image in burst
Auto image rotation (☞ 29)	On
Rotate tall (☞ 30)	On
Slide show (☞ 30)	
Image type	Still images and movies
Frame interval	2 s

■ ■ Photo Shooting Menu Defaults

Option	Default
Extended photo menu banks (☐ 36)	Off
Storage folder (☐ 36)	
Rename	ND500
Select folder by number	100
File naming (☐ 39)	
	DSC
Primary slot selection (☐ 40)	XQD card slot
Secondary slot function (☐ 40)	Overflow
Flash control (☐ 41)	
Flash control mode	TTL
Wireless flash options	Off
Remote flash control	Group flash
Choose image area (☐ 45)	DX (24×16)
Image quality (☐ 46)	JPEG normal
Image size (☐ 47)	
JPEG/TIFF	Large
NEF (RAW)	Large
NEF (RAW) recording (☐ 48)	
NEF (RAW) compression	Lossless compressed
NEF (RAW) bit depth	14-bit
ISO sensitivity settings (☐ 49)	
ISO sensitivity	100
Auto ISO sensitivity control	Off
White balance (☐ 50)	Auto > AUTO0 Keep white (reduce warm colors)
Fine-tuning	A-B: 0, G-M: 0
Choose color temp.	5000 K
Preset manual	d-1

Option	Default
Set Picture Control (☐☐ 51)	Standard
Color space (☐☐ 52)	sRGB
Active D-Lighting (☐☐ 53)	Off
Long exposure NR (☐☐ 53)	Off
High ISO NR (☐☐ 54)	Normal
Vignette control (☐☐ 54)	Normal
Auto distortion control (☐☐ 55)	Off
Flicker reduction (☐☐ 55)	
Flicker reduction setting	Disable
Flicker reduction indicator	On
Auto bracketing set (☐☐ 56)	AE & flash
Multiple exposure (☐☐ 56)*	
Multiple exposure mode	Off
Number of shots	2
Overlay mode	Average
HDR (high dynamic range) (☐☐ 57)	
HDR mode	Off
Exposure differential	Auto
Smoothing	Normal
Interval timer shooting (☐☐ 58)	Off
Start options	Now
Interval	1 minute
No. of intervals×shots/interval	0001×1
Exposure smoothing	Off

* Photo shooting menu reset is not available while shooting is in progress.







■ ■ Movie Shooting Menu Defaults

Option	Default
File naming (□□ 60)	DSC
Destination (□□ 60)	XQD card slot
Choose image area (□□ 60)	DX
Frame size/frame rate (□□ 61)	1920×1080; 60p
Movie quality (□□ 61)	High quality
ISO sensitivity settings (□□ 62)	
ISO sensitivity (mode M)	100
Auto ISO control (mode M)	Off
Maximum sensitivity	51200
White balance (□□ 63)	Same as photo settings
Fine-tuning	A-B: 0, G-M: 0
Choose color temp.	5000 K
Preset manual	d-1
Set Picture Control (□□ 63)	Same as photo settings
Active D-Lighting (□□ 63)	Off
High ISO NR (□□ 64)	Normal
Flicker reduction (□□ 64)	Auto
Microphone sensitivity (□□ 65)	Auto sensitivity
Frequency response (□□ 65)	Wide range
Wind noise reduction (□□ 66)	Off
Time-lapse movie (□□ 66)	Off
Interval	5 s
Shooting time	25 minutes
Exposure smoothing	On
Electronic VR (□□ 66)	Off

■ Custom Settings Menu Defaults

	Option	Default
a1	AF-C priority selection (☐ 73)	Release
a2	AF-S priority selection (☐ 74)	Focus
a3	Focus tracking with lock-on (☐ 75)	
	Blocked shot AF response	3
	Subject motion	(Normal)
a4	3D-tracking face-detection (☐ 76)	Off
a5	3D-tracking watch area (☐ 76)	Normal
a6	Number of focus points (☐ 76)	55 points
a7	Store by orientation (☐ 77)	Off
a8	AF activation (☐ 78)	Shutter/AF-ON
	Out-of-focus release	Enable
a10	Autofocus mode restrictions (☐ 79)	No restrictions
a11	Focus point wrap-around (☐ 80)	No wrap
a12	Focus point options (☐ 81)	
	Manual focus mode	On
	Dynamic-area AF assist	On
	Group-area AF display	☒
	Focus point illumination	Auto
a13	Manual focus ring in AF mode (☐ 82)	Enable
b1	ISO sensitivity step value (☐ 83)	1/3 step
b2	EV steps for exposure cntrl (☐ 83)	1/3 step
b3	Exp./flash comp. step value (☐ 83)	1/3 step
b4	Easy exposure compensation (☐ 84)	Off
b5	Matrix metering (☐ 85)	Face detection on
b6	Center-weighted area (☐ 85)	∅ 8 mm

	Option	Default	
b7	Fine-tune optimal exposure (☐ 85)		
	Matrix metering	0	
	Center-weighted metering	0	
	Spot metering	0	
c1	Highlight-weighted metering	0	
	Shutter-release button AE-L (☐ 86)	Off	
	c2	Standby timer (☐ 86)	6 s
	c3	Self-timer (☐ 87)	
	Self-timer delay	10 s	
	Number of shots	1	
	Interval between shots	0.5 s	
	c4	Monitor off delay (☐ 87)	
	Playback	10 s	
	Menus	1 min	
	Information display	10 s	
	Image review	4 s	
	Live view	10 min	
d1	CL mode shooting speed (☐ 88)	5 fps	
d2	Max. continuous release (☐ 88)	200	
d3	ISO display (☐ 88)	Show frame count	
d4	Sync. release mode options (☐ 89)	Sync	
d5	Exposure delay mode (☐ 89)	Off	
d6	Electronic front-curtain shutter (☐ 89)	Disable	
d7	File number sequence (☐ 90)	On	
d8	Viewfinder grid display (☐ 91)	Off	
d9	LCD illumination (☐ 91)	Off	
d10	Optical VR (☐ 92)	On	

	Option	Default
e1	Flash sync speed (☞ 93)	1/250 s
e2	Flash shutter speed (☞ 94)	1/60 s
e3	Exposure comp. for flash (☞ 94)	Entire frame
e4	Auto  ISO sensitivity control (☞ 95)	Subject and background
e5	Modeling flash (☞ 95)	On
e6	Auto bracketing (mode M) (☞ 96)	Flash/speed
e7	Bracketing order (☞ 96)	MTR > under > over
f1	Custom control assignment (☞ 97)	
	Preview button	Preview
	Preview button + 	None
	Fn1 button	None
	Fn1 button + 	Choose image area
	Fn2 button	Rating
	AF-ON button	AF-ON
	Sub-selector	Focus point selection
	Sub-selector center	AE/AF lock
	Sub-selector center + 	None
	BKT button + 	Auto bracketing
	Movie record button + 	None
	Lens focus function buttons	AF lock only
f2	Multi selector center button (☞ 109)	
	Shooting mode	Select center focus point
	Playback mode	Zoom on/off
	Zoom on/off	Low magnification (50%)
	Live view	Select center focus point
f3	Shutter spd & aperture lock (☞ 111)	
	Shutter speed lock	Off
	Aperture lock	Off

	Option	Default
f4	Customize command dials (☞ 111)	
	Reverse rotation	Exposure compensation: <input type="checkbox"/> Shutter speed/aperture: <input type="checkbox"/>
	Change main/sub	Exposure setting: Off Autofocus setting: Off
	Aperture setting	Sub-command dial
	Menus and playback	Off
	Sub-dial frame advance	10 frames
f5	Multi selector (☞ 114)	Do nothing
f6	Release button to use dial (☞ 114)	No
f7	Reverse indicators (☞ 115)	
f8	Live view button options (☞ 115)	Enable
f9	switch (☞ 115)	LCD backlight ()
f10	Assign MB-D17 buttons (☞ 116)	
	Fn button	AE lock (Reset on release)
	Fn button +	None
	AF-ON button	Same as camera AF-ON button
	Multi selector	Same as camera multi selector
	Photo info/playback	Info /Playback
g1	Custom control assignment (☞ 119)	
	Preview button	Index marking
	Preview button +	None
	Fn1 button	None
	Fn1 button +	None
	Fn2 button	None
	Sub-selector center	AE/AF lock
	Sub-selector center +	None
	Shutter-release button	Take photos

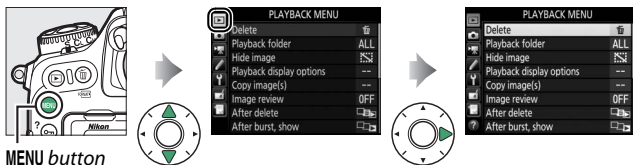
■ Setup Menu Defaults

Option	Default
Time zone and date (☞ 126)	
Sync with smart device	Off
Daylight saving time	Off
Monitor brightness (☞ 127)	
Menus/playback	0
Live view	0
Monitor color balance (☞ 128)	A-B: 0, G-M: 0
Information display (☞ 130)	Auto
Clean image sensor (☞ 133)	
Clean at startup/shutdown	Clean at startup & shutdown
Beep (☞ 141)	
Volume	Off
Pitch	Low
Touch controls (☞ 142)	
Enable/disable touch controls	Enable
Full-frame playback flicks	Left → Right
HDMI (☞ 142)	
Output resolution	Auto
Advanced	
Output range	Auto
Output display size	100%
Live view on-screen display	Off
Dual monitor	On

Option	Default
Location data (📖 143)	
Download from smart device	No
External GPS device options	
Standby timer	Enable
Set clock from satellite	Yes
Wireless remote (WR) options (📖 144)	
LED lamp	On
Link mode	Pairing
Assign remote (WR) Fn button (📖 145)	None
Airplane mode (📖 145)	Disable
Send to smart device (auto) (📖 147)	Off
Eye-Fi upload (📖 149)	Enable
MB-D17 battery type (📖 151)	LR6 (AA alkaline)
Battery order (📖 152)	Use MB-D17 batteries first
Slot empty release lock (📖 154)	Enable release

▶ The Playback Menu: *Managing Images*

To display the playback menu, press **MENU** and select the **▶** (playback menu) tab.



MENU button

Option	
Delete	21
Playback folder	21
Hide image	22
Playback display options	23
Copy image(s)	24
Image review	28

Option	
After delete	28
After burst, show	29
Auto image rotation	29
Rotate tall	30
Slide show	30
Select to send to smart device	32


See Also

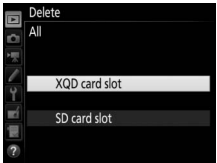
Menu defaults are listed on page 10.

Delete

MENU button →  playback menu

Delete multiple images.

Option	Description
 Selected	Delete selected pictures.
ALL All	Delete all pictures in the folder currently selected for playback. If two cards are inserted, you can select the card from which pictures will be deleted.



Playback Folder

MENU button →  playback menu

Choose a folder for playback.

Option	Description
(Folder name)	Pictures in all folders created with the D500 will be visible during playback. Folders can be renamed using the Storage folder > Rename option in the photo shooting menu.
All	Pictures in all folders will be visible during playback.
Current	Only pictures in the current folder will be visible during playback.

Hide Image



MENU button →  playback menu

Hide or reveal selected pictures as described below. Hidden pictures are visible only in the **Hide image** menu and can only be deleted by formatting the memory card.

Protected and Hidden Images



Revealing a protected image will also remove protection from the image.

1 Choose Select/set.

Highlight **Select/set** and press  (to skip the remaining steps and reveal all pictures, highlight **Deselect all** and press ).

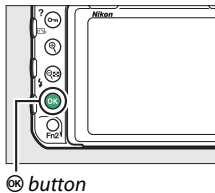


2 Select pictures.

Use the multi selector to scroll through the pictures on the memory card (to view the highlighted picture full screen, press and hold the  button) and press the center of the multi selector to select the current picture. Selected pictures are marked by a  icon; to deselect a picture, highlight it and press the center of the multi selector again. Continue until all the desired pictures have been selected.



- 3** Press **OK**.
Press **OK** to complete the operation.



Playback Display Options

MENU button → **▶** playback menu

Choose the information available in the playback photo information display. Press **▲** or **▼** to highlight an option, then press **▶** to select the option for the photo information display. A **✓** appears next to selected items; to deselect, highlight an item and press **▶**. To return to the playback menu, press **OK**.

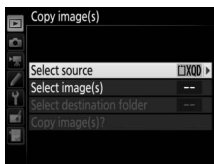
Copy Image(s)


MENU button →  playback menu

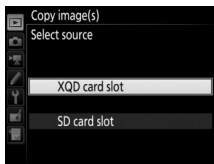
Copy pictures from one memory card to another. This option is only available when two memory cards are inserted in the camera.


Option	Description
Select source	Choose card from which pictures will be copied.
Select image(s)	Select pictures to be copied.
Select destination folder	Select destination folder on remaining card.
Copy image(s)?	Copy selected pictures to specified destination.

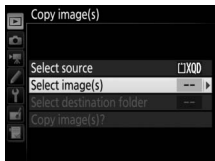
- 1 Choose Select source.**
Highlight **Select source** and press .




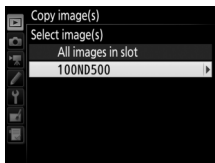
- 2 Select the source card.**
Highlight the slot for the card containing the images to be copied and press .



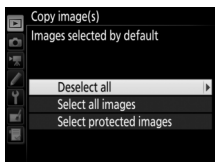
-
- 3 Choose **Select image(s)**.**
Highlight **Select image(s)** and press .





-
- 4 Select the source folder.**
Highlight the folder containing the images to be copied and press .



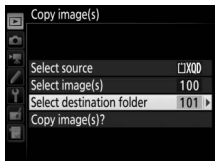
-
- 5 Make the initial selection.**
Before going on to select or deselect individual images, you can mark all or all protected images in the folder for copying by choosing **Select all images** or **Select protected images**. To mark only individually selected images for copying, choose **Deselect all** before proceeding.



-
- 6 Select additional images.**
Highlight pictures and press the center of the multi selector to select or deselect (to view the highlighted picture full screen, press and hold the  button). Selected images are marked with a ✓. Press  to proceed to Step 7 when your selection is complete.



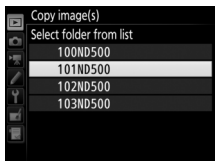
- 7 Choose Select destination folder.**
Highlight **Select destination folder** and press **▶**.



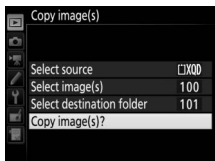
- 8 Select a destination folder.**
To enter a folder number, choose **Select folder by number**, enter the number (37), and press **OK**. If the folder with the selected number does not already exist, a new folder will be created.



To choose from a list of existing folders, choose **Select folder from list**, highlight a folder, and press **OK**.



- 9 Copy the images.**
Highlight **Copy image(s)?** and press **OK**.



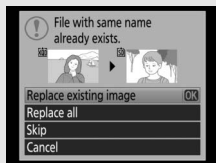
A confirmation dialog will be displayed; highlight **Yes** and press **OK**. Press **OK** again to exit when copying is complete.



✔ Copying Images

Images will not be copied if there is insufficient space on the destination card. Be sure the battery is fully charged before copying movies.


If the destination folder contains an image with the same name as one of the images to be copied, a confirmation dialog will be displayed. Select **Replace existing image** to replace the image with the image to be copied, or select **Replace all** to replace all existing images with the same names without further prompting. To continue without replacing the image, select **Skip**, or select **Cancel** to exit without copying any further images. Hidden or protected files in the destination folder will not be replaced.



Protect status is copied with the images. Hidden images can not be copied.

Image Review




MENU button →  playback menu

Choose whether pictures are automatically displayed in the monitor immediately after shooting. If **Off** is selected, pictures can only be displayed by pressing the  button.

After Delete

MENU button →  playback menu

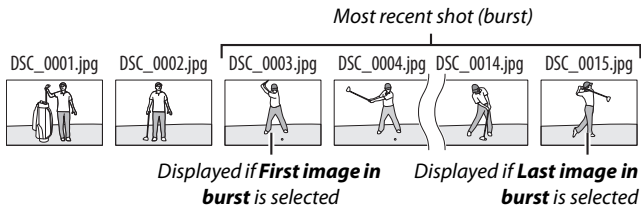
Choose the picture displayed after an image is deleted.

Option	Description
 Show next	Display following picture. If deleted picture was last frame, previous picture will be displayed.
 Show previous	Display previous picture. If deleted picture was first frame, following picture will be displayed.
 Continue as before	If user was scrolling through pictures in order recorded, following picture will be displayed as described for Show next . If user was scrolling through pictures in reverse order, previous picture will be displayed as described for Show previous .

After Burst, Show

MENU button →  playback menu

Choose whether the photo displayed immediately after a burst of shots is taken in continuous mode is the first or last shot in the burst. This option takes effect only when **Image review** (📖 28) is off.



Auto Image Rotation

MENU button →  playback menu

Photographs taken while **On** is selected contain information on camera orientation, allowing them to be rotated automatically during playback or when viewed in ViewNX-i or in Capture NX-D. The following orientations are recorded:



Landscape (wide)
orientation



Camera rotated 90°
clockwise



Camera rotated 90°
counter-clockwise

Camera orientation is not recorded when **Off** is selected. Choose this option when panning or taking photographs with the lens pointing up or down.



Rotate Tall

MENU button →  playback menu

If **On** is selected, “tall” (portrait-orientation) pictures taken with **On** selected for **Auto image rotation** will be automatically rotated for display in the monitor. Pictures taken with **Off** selected for **Auto image rotation** will be displayed in “wide” (landscape orientation). Note that because the camera itself is already in the appropriate orientation during shooting, images are not rotated automatically during image review.

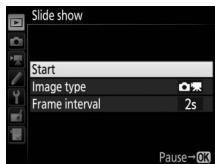
Slide Show

MENU button →  playback menu

Create a slide show of the pictures in the current playback folder ( 21). Hidden images ( 22) are not displayed.

Option	Description
Start	Start slide show.
Image type	Choose type of image displayed from Still images and movies , Still images only , and Movies only .
Frame interval	Choose how long each picture will be displayed.

To start the slide show, highlight **Start** and press **OK**. The following operations can be performed while the slide show is in progress:



To	Press	Description
Skip back/skip ahead		Press to return to previous frame, to skip to next frame.
View additional photo info		Change or hide photo info displayed (still images only).
Pause	OK	Pause slide show. To restart, highlight Restart and press OK .
Raise/lower volume		Press during movie playback to increase volume, to decrease.
Exit to playback menu	MENU	End slide show and return to playback menu.
Exit to playback mode		End slide show and exit to full-frame or thumbnail playback.
Exit to shooting mode		Press shutter-release button halfway to return to shooting mode.

The dialog shown at right is displayed when the show ends. Select **Restart** to restart or **Exit** to return to the playback menu.



Select to Send to Smart Device

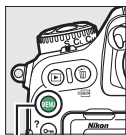
MENU button →  playback menu

Select photos for upload to the smart device. Movies can not be selected for upload.

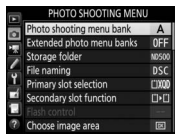
Option	Description
Select image(s)	Mark pictures for upload to the smart device.
Deselect all	Remove the upload markings from all pictures.

📷 The Photo Shooting Menu: *Shooting Options*

To display the photo shooting menu, press **MENU** and select the 📷 (photo shooting menu) tab.



MENU button



Option	📖
Photo shooting menu bank	34
Extended photo menu banks	36
Storage folder	36
File naming	39
Primary slot selection	40
Secondary slot function	40
Flash control	41
Choose image area	45
Image quality	46
Image size	47
NEF (RAW) recording	48
ISO sensitivity settings	49
White balance	50

Option	📖
Set Picture Control	51
Manage Picture Control	52
Color space	52
Active D-Lighting	53
Long exposure NR	53
High ISO NR	54
Vignette control	54
Auto distortion control	55
Flicker reduction	55
Auto bracketing set	56
Multiple exposure	56
HDR (high dynamic range)	57
Interval timer shooting	58

📌 See Also

Menu defaults are listed on page 11.

Photo Shooting Menu Bank

MENU button →  photo shooting menu

Photo shooting menu options are stored in one of four banks. With the exceptions of **Extended photo menu banks**, **Multiple exposure**, **Interval timer shooting**, and modifications to Picture Controls (quick adjust and other manual adjustments), changes to settings in one bank have no effect on the others. To store a particular combination of frequently-used settings, select one of the four banks and set the camera to these settings. The new settings will be stored in the bank even when the camera is turned off, and will be restored the next time the bank is selected. Different combinations of settings can be stored in the other banks, allowing the user to switch instantly from one combination to another by selecting the appropriate bank from the bank menu.


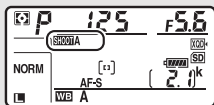
The default names for the four photo shooting menu banks are A, B, C, and D. A descriptive caption up to 20 characters long can be added as described on page 39 by highlighting the menu bank and pressing .

Photo Shooting Menu Bank



The control panel and information displays show the current photo shooting menu bank.

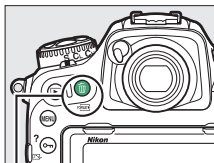



See Also

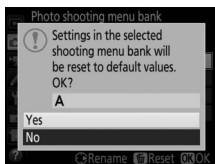
Exposure and flash modes, shutter speed, and aperture can be included in photo shooting menu banks using the **Extended photo menu banks** option in the photo shooting menu (☰ 36). For information on using the controls on the camera body to select the photo shooting menu bank, see Custom Setting f1 (**Custom control assignment**, ☰ 97).

Restoring Default Settings

To restore default settings, highlight a bank in the **Photo shooting menu bank** menu and press  (FORMAT). A confirmation dialog will be displayed; highlight **Yes** and press  to restore default settings for the selected bank. See page 11 for a list of default settings.



 (FORMAT) button



Extended Photo Menu Banks

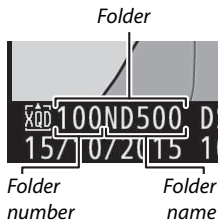
MENU button →  photo shooting menu

Select **On** to include exposure and flash modes, shutter speed (modes **S** and **M** only), and aperture (modes **A** and **M** only) in the information recorded in each of the four photo shooting menu banks, to be recalled whenever the bank is selected. Selecting **Off** restores the values in effect before **On** was selected.


Storage Folder

MENU button →  photo shooting menu

Rename folders and select the folder in which subsequent images will be stored.



■ Rename

Folders are identified by a 5-character folder name preceded by a 3-digit folder number assigned automatically by the camera. The default folder name is “ND500”; to change the name assigned to new folders, select **Rename** and rename the folder as described on page 39 (if desired, the default name can be restored by pressing and holding the  (FORMAT) button while the keyboard is displayed). Existing folders can not be renamed.

■ Select Folder by Number

To select folders by number or create a new folder with the current folder name and a new folder number:

- 1 Choose Select folder by number.**
Highlight **Select folder by number** and press \odot . The dialog shown at right will be displayed, with the current primary slot underlined.



- 2 Choose a folder number.**

Press \odot or \odot to highlight a digit, press \odot or \odot to change. If a folder with the selected number already exists, a \square , \square , or \square icon will be displayed to the left of the folder number:

- \square : Folder is empty.
- \square : Folder is partially full.
- \square : Folder contains 999 pictures or a picture numbered 9999. No further pictures can be stored in this folder.

The card on which the folder is stored is shown by the card slot icon in the top right corner of the “select folder by number” dialog. The card used for new folders depends on the option currently selected for **Secondary slot function** (\square 40).

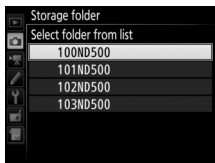
- 3 Save changes and exit.**



Press \odot to complete the operation (to exit without changing the storage folder, press the MENU button). If a folder with the specified number does not already exist, a new folder will be created. Subsequent photographs will be stored in the selected folder unless it is already full.


■ Select Folder from List

To choose from a list of existing folders:

- 1 Choose Select folder from list.**
Highlight **Select folder from list** and press .



- 2 Highlight a folder.**
Press  or  to highlight a folder.

- 3 Select the highlighted folder.**
Press  to select the highlighted folder. Subsequent photographs will be stored in the selected folder.

Folder and File Numbers


If the current folder is numbered 999 and contains 999 pictures or a photo numbered 9999, the shutter-release will be disabled and no further photographs can be taken (in addition, movie recording may be disabled if the current folder is numbered 999 and contains 992 pictures or a file numbered 9992 or higher). To continue shooting, create a folder with a number less than 999, select an existing folder with a number less than 999 and less than 999 images, or try changing the options selected for **Frame size/frame rate** and **Movie quality** (□ 61).

Startup Time






Additional time may be required for camera startup if the memory card contains a very large number of files or folders.

File Naming

MENU button →  photo shooting menu

Photographs are saved using file names consisting of “DSC_” or, in the case of images that use the Adobe RGB color space ( 52), “_DSC”, followed by a four-digit number and a three-letter extension (e.g., “DSC_0001.JPG”). The **File naming** option is used to select three letters to replace the “DSC” portion of the file name.

Text Entry

The dialog at right is displayed when text entry is required. Tap the letters on the touch-screen keyboard. You can also use the multi selector to highlight the desired character in the keyboard area and press the center of the multi selector to insert the highlighted character at the current cursor position (note that if a character is entered when the field is full, the last character in the field will be deleted). To delete the character under the cursor, press the  (RENAME) button. To move the cursor to a new position, tap the display or hold the  (↔) button and press  or . To complete entry and return to the previous menu, press . To exit without completing text entry, press MENU.



Extensions


The following extensions are used: “.NEF” for NEF (RAW) images, “.TIF” for TIFF (RGB) images, “.JPG” for JPEG images, “.MOV” for movies, and “.NDF” for dust off reference data. In each pair of photographs recorded at image-quality settings of NEF (RAW)+JPEG, the NEF and JPEG images have the same file names but different extensions.

Primary Slot Selection

MENU button →  photo shooting menu

Choose the primary slot for shooting and playback. Select **XQD card slot** to designate the card in the XQD card slot as the primary card, **SD card slot** to choose the SD card.

Secondary Slot Function

MENU button →  photo shooting menu

Choose the role played by the primary and secondary cards when two memory cards are inserted in the camera.

Choose from **Overflow** (the secondary card is used only when the primary card is full), **Backup** (each picture is recorded to both the primary and secondary card), and **RAW primary - JPEG secondary** (as for **Backup**, except that the NEF/RAW copies of photos shot at settings of NEF/RAW + JPEG are recorded only to the primary card and the JPEG copies only to the secondary card).

Flash Control

MENU button →  photo shooting menu

Choose the flash control mode for optional flash units mounted on the camera accessory shoe and adjust settings for off-camera flash photography.




■ Flash Control Mode

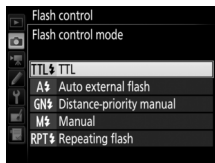
When an SB-5000, SB-500, SB-400, or SB-300 is mounted on the camera, the flash control mode, flash level, and other flash settings can be adjusted using the

Flash control > Flash control mode

item in the photo shooting menu (in the case of the SB-5000, these settings can

also be adjusted using the controls on the flash unit). The options available vary with the flash used, while the options displayed under **Flash control mode** vary with the mode selected. Settings for other flash units can only be adjusted using flash unit controls.

- **TTL:** i-TTL mode. In the cases of the SB-500, SB-400, and SB-300, flash compensation can be adjusted using the  button.
- **Auto external flash:** In this mode, output is adjusted automatically according to the amount of light reflected by the subject; flash compensation is also available. Auto external flash supports “auto aperture” (A) and “non-TTL auto” (A) modes; non-TTL auto is selected automatically if a non-CPU lens is attached without specifying the focal length and maximum aperture using the **Non-CPU lens data** option in the setup menu ( 132). See the flash unit manual for details.

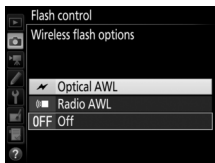


- **Distance-priority manual:** Choose the distance to the subject; flash output will be adjusted automatically. Flash compensation is also available.
- **Manual:** Choose the flash level manually.
- **Repeating flash:** The flash fires repeatedly while the shutter is open, producing a multiple-exposure effect. Choose the flash level (**Output**), the number of times the units fire (**Times**), and the number of times the flash fires per second (**Frequency**, measured in Hertz). Note that the number of times the units fire in total may vary depending on the options selected for **Output** and **Frequency**; see the documentation provided with the flash unit for details.

■ Wireless Flash Options

Adjust settings for simultaneous wireless control of multiple remote flash units.

This option is available only when an SB-5000 or SB-500 flash unit or a WR-R10 wireless remote controller is mounted on the camera.



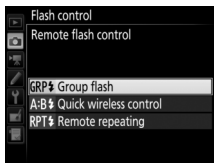
Option	Description
Optical AWL	The remote flash units are controlled using low-intensity flashes emitted by the master flash. Available only with an SB-5000 or SB-500 mounted on the camera accessory shoe.
Optical/ radio AWL	This option is for flash photography using both optically- and radio-controlled flash units and is available when a WR-R10 is attached and an SB-500, or an SB-910, SB-900, SB-800, SB-700, or SU-800 configured to serve as the master flash, is mounted on the camera accessory shoe. Remote flash control is automatically set to Group flash (□ 44).
Radio AWL	The remote flash units are controlled by radio signals emitted by a WR-R10 attached to the camera. Available only with the WR-R10 and remote flash units that support radio AWL.
Off	Remote flash photography disabled.

Radio AWL

A WR-A10 adapter is required when using the WR-R10. Be sure to update the WR-R10 firmware to the latest version; for information on firmware updates, see the Nikon website for your area.

■ Remote Flash Control

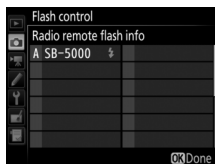
Choose from the following remote flash photography options.



Option	Description
Group flash	Choose a separate flash control mode and flash level for each group of remote flash units. If Optical AWL or Optical/radio AWL is selected for Wireless flash options (□ 43), you can choose the channel used by the master flash to communicate with the remote flash units.
Quick wireless control	Choose for control of overall flash output. Use Quick wireless control options to adjust the balance between groups A and B and set the output for group C manually (the master flash does not fire). You can also adjust flash compensation for groups A and B and, if Optical AWL or Optical/radio AWL is selected for Wireless flash options (□ 43), choose the channel used by the master flash to communicate with the remote flash units.
Remote repeating	The flash units fire repeatedly while the shutter is open, producing a multiple-exposure effect. Choose the flash level (Output), the number of times the flash units fire (Times), the number of times the units fire per second (Frequency), and, if Optical AWL or Optical/radio AWL is selected for Wireless flash options (□ 43), the channel used by the master flash to communicate with the remote flash units. Note that the number of times the flash units fire in total may vary depending on the options selected for Output and Frequency ; see the documentation provided with the flash unit for details.

■ ■ Radio Remote Flash Info

View the flash units currently controlled using radio AWL when **Radio AWL** is selected for **Wireless flash options**.



Choose Image Area

MENU button →  photo shooting menu

Choose an image area from DX (24×16) and 1.3× (18×12).



Option	Description
 DX (24×16)	Pictures are recorded using a 23.5 × 15.7 mm image area (DX format).
 1.3× (18×12)	Pictures are recorded using a 18.0 × 12.0 mm image area, producing a telephoto effect without the need to change lenses.

Image Quality

MENU button →  photo shooting menu


Choose a file format and compression ratio (image quality).

Option	File type	Description
NEF (RAW)	NEF	RAW data from the image sensor are saved without additional processing. Settings such as white balance and contrast can be adjusted after shooting.
NEF (RAW)+ JPEG fine★/ NEF (RAW)+ JPEG fine	NEF/ JPEG	Two images are recorded, one NEF (RAW) image and one fine-quality JPEG image.
NEF (RAW)+ JPEG normal★/ NEF (RAW)+ JPEG normal		Two images are recorded, one NEF (RAW) image and one normal-quality JPEG image.
NEF (RAW)+ JPEG basic★/ NEF (RAW)+ JPEG basic		Two images are recorded, one NEF (RAW) image and one basic-quality JPEG image.
JPEG fine★/ JPEG fine	JPEG	Record JPEG images at a compression ratio of roughly 1 : 4 (fine quality).
JPEG normal★/ JPEG normal		Record JPEG images at a compression ratio of roughly 1 : 8 (normal quality).
JPEG basic★/ JPEG basic		Record JPEG images at a compression ratio of roughly 1 : 16 (basic quality).
TIFF (RGB)	TIFF (RGB)	Record uncompressed TIFF-RGB images at a bit depth of 8 bits per channel (24-bit color). TIFF is supported by a wide variety of imaging applications.

JPEG Compression

Image quality options with a star ("★") use compression intended to ensure maximum quality; the size of the files varies with the scene. Options without a star use a type of compression designed to produce smaller files; files tend to be roughly the same size regardless of the scene recorded.

Image Size

MENU button →  photo shooting menu

Choose the size, in pixels, of photographs recorded with the camera. Select **JPEG/TIFF** to choose the size of JPEG and TIFF images, **NEF (RAW)** to choose the size of NEF (RAW) images.



Image area	Option	Size (pixels)
DX (24×16)	Large	5568 × 3712
	Medium	4176 × 2784
	Small	2784 × 1856
1.3 × (18×12)	Large	4272 × 2848
	Medium	3200 × 2136
	Small	2128 × 1424

NEF (RAW) Recording

MENU button →  photo shooting menu

Choose a compression type and bit depth for NEF (RAW) photographs.

■ ■ NEF (RAW) Compression

Option	Description
ON  Lossless compressed	NEF images are compressed using a reversible algorithm, reducing file size by about 20–40% with no effect on image quality.
ON  Compressed	NEF images are compressed using a non-reversible algorithm, reducing file size by about 35–55% with almost no effect on image quality.
Uncompressed	NEF images are not compressed.


■ ■ NEF (RAW) Bit Depth

Option	Description
12-bit 12-bit	NEF (RAW) images are recorded at a bit-depth of 12 bits.
14-bit 14-bit	NEF (RAW) images are recorded at a bit depth of 14 bits, producing files larger than those with a bit depth of 12 bits but increasing the color data recorded.

ISO Sensitivity Settings

MENU button →  photo shooting menu










Adjust ISO sensitivity settings for photographs.

Option	Description
ISO sensitivity	Adjust ISO sensitivity. Select from values between ISO 100 and 51200. Settings of from about 0.3 to 1 EV below ISO 100 and 0.3 to 5 EV above ISO 51200 are also available for special situations.
Auto ISO sensitivity control	If On is selected, the camera will automatically adjust ISO sensitivity when optimal exposure can not be achieved at the value selected for ISO sensitivity . You can choose the maximum sensitivity to prevent ISO sensitivity being raised too high and the shutter speed below which auto ISO sensitivity control will kick in to prevent under exposure in modes P and A (the minimum shutter speed; choose from values between $\frac{1}{4000}$ s and 30 s). The maximum ISO sensitivity for photos taken using an optional flash unit can be selected using Maximum sensitivity with  .


White Balance

MENU button →  photo shooting menu








Match white balance to the light source.

Option	Description
AUTO Auto	White balance is adjusted automatically. For best results, use type G, E or D lens. If optional flash fires, results are adjusted appropriately.
 Keep white (reduce warm colors)	
Normal	
 Keep warm lighting colors	
 Incandescent	Use under incandescent lighting.
 Fluorescent	Use with:
Sodium-vapor lamps	• Sodium-vapor lighting (found in sports venues).
Warm-white fluorescent	• Warm-white fluorescent lights.
White fluorescent	• White fluorescent lights.
Cool-white fluorescent	• Cool-white fluorescent lights.
Day white fluorescent	• Daylight white fluorescent lights.
Daylight fluorescent	• Daylight fluorescent lights.
High temp. mercury-vapor	• High color temperature light sources (e.g. mercury-vapor lamps).
 Direct sunlight	Use with subjects lit by direct sunlight.
 Flash	Use with optional flash units.
 Cloudy	Use in daylight under overcast skies.
 Shade	Use in daylight with subjects in the shade.
 Choose color temp.	Choose color temperature from list of values.
PRE Preset manual	Use subject, light source, or existing photograph as reference for white balance.


Set Picture Control

MENU button →  photo shooting menu

Choose how new photos will be processed. Select according to the type of scene or your creative intent.

Option	Description
 SD Standard	Standard processing for balanced results. Recommended for most situations.
 NL Neutral	Minimal processing for natural results. Choose for photographs that will later be processed or retouched.
 VI Vivid	Pictures are enhanced for a vivid, photoprint effect. Choose for photographs that emphasize primary colors.
 MC Monochrome	Take monochrome photographs.
 PT Portrait	Process portraits for skin with natural texture and a rounded feel.
 LS Landscape	Produces vibrant landscapes and cityscapes.
 FL Flat	Details are preserved over a wide tone range, from highlights to shadows. Choose for photographs that will later be extensively processed or retouched.


Manage Picture Control

MENU button →  photo shooting menu

Create custom Picture Controls.

Option	Description
Save/edit	Create a new custom Picture Control based on an existing preset or custom Picture Control, or edit existing custom Picture Controls.
Rename	Rename a selected Picture Control.
Delete	Delete a selected Picture Control.
Load/save	Copy Picture Controls from a memory card to the camera, or copy existing Picture Controls from the camera to the card.

Color Space

MENU button →  photo shooting menu

The color space determines the gamut of colors available for color reproduction. **sRGB** is recommended for general-purpose printing and display, **Adobe RGB**, with its broader gamut of colors, for professional publication and commercial printing.


Adobe RGB

For accurate color reproduction, Adobe RGB images require applications, displays, and printers that support color management.

Color Space

ViewNX-i and Capture NX-D automatically select the correct color space when opening photographs created with this camera. Results can not be guaranteed with third-party software.


Active D-Lighting

MENU button →  photo shooting menu

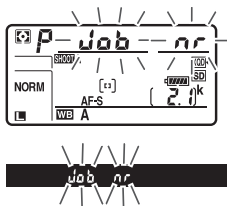
Preserve details in highlights and shadows, creating photographs with natural contrast.

Option	Description
Auto	The camera automatically adjusts Active D-Lighting according to shooting conditions.
Extra high	Choose the Active D-Lighting level.
High	
Normal	
Low	
Off	Active D-Lighting off.

Long Exposure NR (Long Exposure Noise Reduction)

MENU button →  photo shooting menu

If **On** is selected, photographs taken at shutter speeds slower than 1 s will be processed to reduce noise (bright spots or fog). The time required for processing roughly doubles; during processing, “**Job nr**” will flash in the shutter speed/aperture displays and pictures can not be taken (if the camera is turned off before processing is complete, the picture will be saved but noise reduction will not be performed). In continuous release mode, frame rates will slow and while photographs are being processed, the capacity of the memory buffer will drop.



High ISO NR

MENU button →  photo shooting menu

Photographs taken at high ISO sensitivities can be processed to reduce “noise”.

Option	Description
High	Reduce noise (randomly-spaced bright pixels), particularly in pictures taken at high ISO sensitivities. Choose the amount of noise reduction performed from High , Normal , and Low .
Normal	
Low	
Off	Noise reduction is performed only as required and never at an amount as high as when Low is selected.

Vignette Control


MENU button →  photo shooting menu

“Vignetting” is a drop in brightness at the edges of a photograph. **Vignette control** reduces vignetting for type G, E, and D lenses (PC lenses excluded). Its effects vary from lens to lens and are most noticeable at maximum aperture. Choose from **High**, **Normal**, **Low**, and **Off**.

Vignette Control

Depending on the scene, shooting conditions, and type of lens, TIFF and JPEG images may exhibit noise (fog) or variations in peripheral brightness, while custom Picture Controls and preset Picture Controls that have been modified from default settings may not produce the desired effect. Take test shots and view the results in the monitor. Vignette control does not apply to movies or multiple exposures.

Auto Distortion Control


MENU button →  photo shooting menu

Select **On** to reduce barrel distortion when shooting with wide-angle lenses and to reduce pin-cushion distortion when shooting with long lenses (note that the edges of the area visible in the viewfinder may be cropped out of the final photograph, and that the time needed to process photographs before recording begins may increase). This option does not apply to movies and is available only with type G, E, and D lenses (PC, fisheye, and certain other lenses excluded); results are not guaranteed with other lenses.

Retouch: Distortion Control

For information on creating copies of existing photographs with reduced barrel and pin-cushion distortion, see page 170.

Flicker Reduction

MENU button →  photo shooting menu

Reduce flicker and banding when shooting under fluorescent or mercury-vapor lighting during viewfinder photography.

Option	Description
Flicker reduction setting	When Enable is selected, the camera will time photographs to reduce the effects of flicker. Note that the frame rate may drop while flicker reduction is in effect.
Flicker reduction indicator	Choose whether the camera displays a FLICKER icon in the viewfinder when flicker is detected.

Auto Bracketing Set


MENU button →  photo shooting menu

Choose the setting or settings bracketed when auto bracketing is in effect. Choose **AE & flash** (AE/AF) to perform both exposure and flash-level bracketing, **AE only** (AE) to bracket only exposure, **Flash only** (AF) to perform only flash-level bracketing, **WB bracketing** (WB) to perform white-balance bracketing, or **ADL bracketing** (AL) to perform bracketing using Active D-Lighting. Note that white balance bracketing is not available at image quality settings of NEF (RAW) or NEF (RAW) + JPEG.

Multiple Exposure

MENU button →  photo shooting menu


Record two to ten NEF (RAW) exposures as a single photograph.

Option	Description
Multiple exposure mode	<ul style="list-style-type: none">• ON  On (series): Take a series of multiple exposures. Select Off to resume normal shooting.• On (single photo): Take one multiple exposure.• Off: Exit without creating additional multiple exposures.
Number of shots	Choose the number of exposures that will be combined to form a single photograph.
Overlay mode	<ul style="list-style-type: none">• Add: The exposures are overlaid without modification; gain is not adjusted.• Average: Before the exposures are overlaid, the gain for each is divided by the total number of exposures taken (gain for each exposure is set to $\frac{1}{2}$ for 2 exposures, $\frac{1}{3}$ for 3 exposures, etc).• Lighten: The camera compares the pixels in each exposure and uses only the brightest.• Darken: The camera compares the pixels in each exposure and uses only the darkest.

HDR (High Dynamic Range)

MENU button →  photo shooting menu

Used with high contrast subjects, High Dynamic Range (HDR) preserves details in highlights and shadows by combining two shots taken at different exposures.

Option	Description
HDR mode	<ul style="list-style-type: none">• ON  On (series): Take a series of HDR photographs. Select Off to resume normal shooting.• On (single photo): Take one HDR photograph.• Off: Exit without taking additional HDR photographs.
Exposure differential	Choose the difference in exposure between the two shots that are combined to make an HDR photograph. Choose larger values for high-contrast subjects, or select Auto to let the camera adjust the exposure differential according to the scene.
Smoothing	Choose how much to smooth the boundaries between the shots that make up each HDR photograph.

Interval Timer Shooting

MENU button →  photo shooting menu

Take photographs at the selected interval until the specified number of shots has been recorded. Select a release mode other than self-timer (☺) when using the interval timer.

Option	Description
Start	Start interval timer shooting, either after 3 s (Now selected for Start options) or at a selected date and time (Choose start day and start time). Shooting will continue at the selected interval until all shots have been taken.
Start options	Choose a start option. To start shooting immediately, select Now . To start shooting at a chosen date and time, select Choose start day and start time .
Interval	Choose the interval (hours, minutes, and seconds) between shots.
No. of intervals × shots/interval	Choose the number of intervals and the number of shots per interval.
Exposure smoothing	Selecting On allows the camera to adjust exposure to match previous shot in modes other than M (note that exposure smoothing only takes effect in mode M if auto ISO sensitivity control is on).

🎬 The Movie Shooting Menu: *Movie Shooting Options*

To display the movie shooting menu, press **MENU** and select the 🎬 (movie shooting menu) tab.




Option	
Reset movie shooting menu	60
File naming	60
Destination	60
Choose image area	60
Frame size/frame rate	61
Movie quality	61
ISO sensitivity settings	62
White balance	63
Set Picture Control	63



Option	
Manage Picture Control	63
Active D-Lighting	63
High ISO NR	64
Flicker reduction	64
Microphone sensitivity	65
Frequency response	65
Wind noise reduction	66
Time-lapse movie	66
Electronic VR	66

📖 See Also


Menu defaults are listed on page 13.


Reset Movie Shooting Menu

MENU button →  movie shooting menu


Highlight **Yes** and press  to restore movie shooting menu options to their default values ( 13).

File Naming

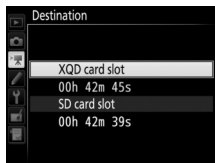
MENU button →  movie shooting menu

Choose the three-letter prefix used in naming the image files in which movies are stored. The default prefix is “DSC” ( 39).


Destination

MENU button →  movie shooting menu

Choose the slot to which movies are recorded. The menu shows the time available on each card; recording ends automatically when no time remains.




Choose Image Area


















MENU button →  movie shooting menu


Choose the image area for movies from **DX** and **1.3x**.

Frame Size/Frame Rate


MENU button →  movie shooting menu

Choose the movie frame size (in pixels) and frame rate.

Option ¹	Maximum bit rate (Mbps) (★ high quality/Normal)	Maximum length
 3840 × 2160 (4K UHD); 30p²	144	29 min. 59 s ³
 3840 × 2160 (4K UHD); 25p²		
 3840 × 2160 (4K UHD); 24p²		
 /  1920 × 1080; 60p	48/24	
 /  1920 × 1080; 50p		
 /  1920 × 1080; 30p	24/12	
 /  1920 × 1080; 25p		
 /  1920 × 1080; 24p		
 /  1280 × 720; 60p		
 /  1280 × 720; 50p		


- 1 Actual frame rate is 29.97 fps for values listed as 30p, 23.976 fps for values listed as 24p, and 59.94 fps for values listed as 60p.
- 2 When this option is selected,  is displayed in the monitor and movie quality is fixed at “high”.
- 3 Each movie will be recorded across up to 8 files of up to 4 GB each. The number of files and the length of each file vary with the options selected for **Frame size/frame rate** and **Movie quality**.

Movie Quality

MENU button →  movie shooting menu

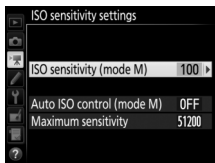
Choose from **High quality** and **Normal**.

ISO Sensitivity Settings

MENU button →  movie shooting menu

Adjust the following ISO sensitivity settings.


- **ISO sensitivity (mode M):** Choose the ISO sensitivity for exposure mode **M** from values between ISO 100 and Hi 5. Auto ISO sensitivity control is used in other exposure modes.
- **Auto ISO control (mode M):** Select **On** for auto ISO sensitivity control in exposure mode **M**, **Off** to use the value selected for **ISO sensitivity (mode M)**.
- **Maximum sensitivity:** Choose the upper limit for auto ISO sensitivity control from values between ISO 200 and Hi 5. Auto ISO sensitivity control is used in exposure modes **P**, **S**, and **A** and when **On** is selected for **Auto ISO control (mode M)** in exposure mode **M**.



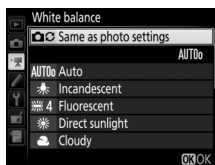
Auto ISO Sensitivity Control

At high ISO sensitivities, the camera may have difficulty focusing and noise (randomly-spaced bright pixels, fog, or lines) may increase. This can be prevented by choosing a lower value for **ISO sensitivity settings** > **Maximum sensitivity**.


White Balance

MENU button →  movie shooting menu

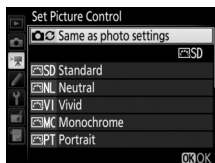
Choose the white balance for movies (□ 50). Select **Same as photo settings** to use the option currently selected for photos.




Set Picture Control

MENU button →  movie shooting menu

Choose a Picture Control for movies (□ 51). Select **Same as photo settings** to use the option currently selected for photos.




Manage Picture Control

MENU button →  movie shooting menu

Create custom Picture Controls (□ 52).


Active D-Lighting

MENU button →  movie shooting menu

Preserve details in highlights and shadows, creating movies with natural contrast. Select **Same as photo settings** to use the option currently selected for photos (□ 53).




High ISO NR

MENU button →  movie shooting menu

Reduce “noise” (randomly-spaced bright pixels) in movies recorded at high ISO sensitivities (□ 54).

Flicker Reduction


MENU button →  movie shooting menu

Reduce flicker and banding when shooting under fluorescent or mercury-vapor lighting during live view or movie recording. Choose **Auto** to allow the camera to automatically choose the correct frequency, or manually match the frequency to that of the local AC power supply.

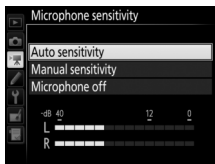
Flicker Reduction in the Movie Shooting Menu

If **Auto** fails to produce the desired results and you are unsure as to the frequency of the local power supply, test both the 50 and 60 Hz options and choose the one that produces the best results. Flicker reduction may not produce the desired results if the subject is very bright, in which case you should try choosing a smaller aperture (higher f-number). To prevent flicker, select mode **M** and choose a shutter speed adapted to the frequency of the local power supply: $\frac{1}{125}$ s, $\frac{1}{60}$ s, or $\frac{1}{30}$ s for 60 Hz; $\frac{1}{100}$ s, $\frac{1}{50}$ s, or $\frac{1}{25}$ s for 50 Hz.


Microphone Sensitivity

MENU button →  movie shooting menu

Turn the built-in microphone on or off or adjust microphone sensitivity. Choose **Auto sensitivity** to adjust sensitivity automatically, **Microphone off** to turn sound recording off; to select microphone sensitivity manually, select **Manual sensitivity** and choose a sensitivity.






The icon

 is displayed in full-frame and movie playback if the movie was recorded without sound.




Frequency Response

MENU button →  movie shooting menu


If  **Wide range** is selected, the built-in microphone will respond to a wide range of frequencies, from music to the bustling hum of a city street. Choose  **Vocal range** to bring out human voices.

Wind Noise Reduction

MENU button →  movie shooting menu

Select **On** to enable the low-cut filter for the built-in microphone (optional stereo microphones are unaffected), reducing noise produced by wind blowing over the microphone (note that other sounds may also be affected). Wind-noise reduction for optional stereo microphones that support this feature can be enabled or disabled using microphone controls.


Time-Lapse Movie

MENU button →  movie shooting menu

The camera automatically takes photos at selected intervals to create a silent time-lapse movie with the frame size, frame rate, and image area currently selected in the movie shooting menu.


Option	Description
Start	Start time-lapse recording. Shooting starts after about 3 s and continues at the selected interval for the selected shooting time.
Interval	Choose the interval between shots in minutes and seconds.
Shooting time	Choose the shooting time (hours and minutes) .
Exposure smoothing	Selecting On smooths abrupt changes in exposure in modes other than M (note that exposure smoothing only takes effect in mode M if auto ISO sensitivity control is on).

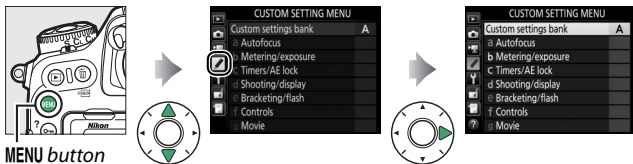
Electronic VR

MENU button →  movie shooting menu

Choose whether to enable electronic vibration reduction in movie mode.

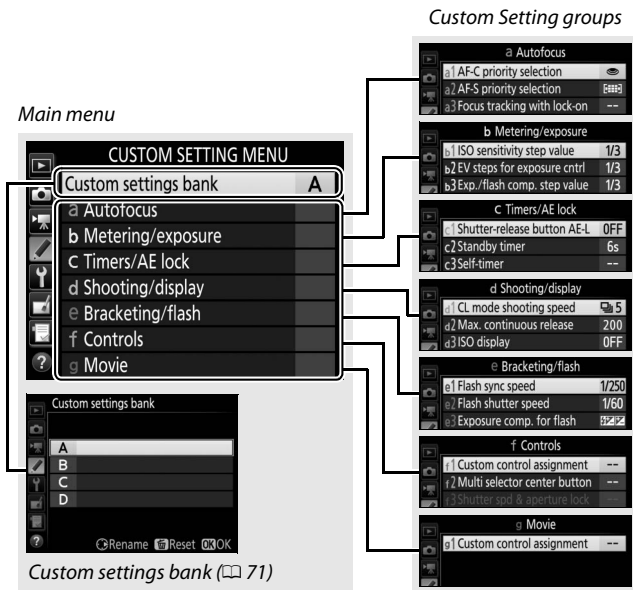
Custom Settings: Fine-Tuning Camera Settings

To display the Custom Settings menu, press **MENU** and select the  (Custom Settings menu) tab.



MENU button

Custom Settings are used to customize camera settings to suit individual preferences.




Main menu


Custom Setting groups



Custom settings bank (71)

The following Custom Settings are available:

Custom Setting		
Custom settings bank		71
a Autofocus		
a1	AF-C priority selection	73
a2	AF-S priority selection	74
a3	Focus tracking with lock-on	75
a4	3D-tracking face-detection	76
a5	3D-tracking watch area	76
a6	Number of focus points	76
a7	Store by orientation	77
a8	AF activation	78
a9	Limit AF-area mode selection	79
a10	Autofocus mode restrictions	79
a11	Focus point wrap-around	80
a12	Focus point options	81
a13	Manual focus ring in AF mode *	82
b Metering/exposure		
b1	ISO sensitivity step value	83
b2	EV steps for exposure cntrl	83
b3	Exp./flash comp. step value	83
b4	Easy exposure compensation	84
b5	Matrix metering	85
b6	Center-weighted area	85
b7	Fine-tune optimal exposure	85




c Timers/AE lock		
c1	Shutter-release button AE-L	86
c2	Standby timer	86
c3	Self-timer	87
c4	Monitor off delay	87
d Shooting/display		
d1	CL mode shooting speed	88
d2	Max. continuous release	88
d3	ISO display	88
d4	Sync. release mode options	89
d5	Exposure delay mode	89
d6	Electronic front-curtain shutter	89
d7	File number sequence	90
d8	Viewfinder grid display	91
d9	LCD illumination	91
d10	Optical VR*	92
e Bracketing/flash		
e1	Flash sync speed	93
e2	Flash shutter speed	94
e3	Exposure comp. for flash	94
e4	Auto  ISO sensitivity control	95
e5	Modeling flash	95
e6	Auto bracketing (mode M)	96
e7	Bracketing order	96


Custom Setting		
f Controls		
f1	Custom control assignment	97
f2	Multi selector center button	109
f3	Shutter spd & aperture lock	111
f4	Customize command dials	111
f5	Multi selector	114
f6	Release button to use dial	114
f7	Reverse indicators	115
f8	Live view button options	115
f9	 switch	115
f10	Assign MB-D17 buttons	116
g Movie		
g1	Custom control assignment	119

* Available only with lenses that support this item.



Custom Settings Bank

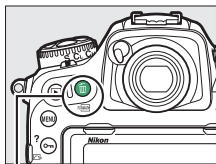
MENU button →  Custom Settings menu


Custom Settings are stored in one of four banks. Changes to settings in one bank have no effect on the others. To store a particular combination of frequently-used settings, select one of the four banks and set the camera to these settings. The new settings will be stored in the bank even when the camera is turned off, and will be restored the next time the bank is selected. Different combinations of settings can be stored in the other banks, allowing the user to switch instantly from one combination to another by selecting the appropriate bank from the bank menu.

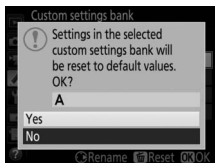
The default names for the four Custom Settings banks are A, B, C, and D. A descriptive caption up to 20 characters long can be added as described on page 39 by highlighting the menu bank and pressing .

■ Restoring Default Settings

To restore default settings, highlight a bank in the **Custom settings bank** menu and press  (FORMAT). A confirmation dialog will be displayed; highlight **Yes** and press  to restore default settings for the selected bank (book 14).



 button




See Also





Menu defaults are listed on page 14. If settings in the current bank have been modified from default values, an asterisk will be displayed adjacent to the altered settings in the second level of the Custom Settings menu.

a: Autofocus

a1: AF-C Priority Selection


MENU button →  Custom Settings menu

When **AF-C** is selected for viewfinder photography, this option controls whether photographs can be taken whenever the shutter-release button is pressed (*release priority*) or only when the camera is in focus (*focus priority*).



Option	Description
 Release	Photos can be taken whenever the shutter-release button is pressed.
 Focus + release	Photos can be taken even when the camera is not in focus. If the subject is dark or low contrast and the camera is in continuous mode, priority will be given to focus for the first shot in each series and to frame rate for the remaining shots, ensuring a high frame rate if the distance to the subject does not change during shooting.
 Release + focus	Photos can be taken even when the camera is not in focus. In continuous mode, frame rate slows for improved focus if the subject is dark or low contrast.
 Focus	Photos can only be taken when the in-focus indicator (●) is displayed.

Regardless of the option selected, focus will not lock when **AF-C** is selected for autofocus mode. The camera will continue to adjust focus until the shutter is released.

a2: AF-S Priority Selection

MENU button →  Custom Settings menu

When **AF-S** is selected for viewfinder photography, this option controls whether photographs can be taken only when the camera is in focus (*focus priority*) or whenever the shutter-release button is pressed (*release priority*).

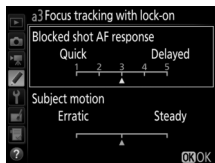
Option	Description
 Release	Photos can be taken whenever the shutter-release button is pressed.
 Focus	Photos can only be taken when the in-focus indicator (●) is displayed.

Regardless of the option selected, if the in-focus indicator (●) is displayed when **AF-S** is selected for autofocus mode, focus will lock while the shutter-release button is pressed halfway. Focus lock continues until the shutter is released.

a3: Focus Tracking with Lock-On

MENU button →  Custom Settings menu

This option controls how autofocus adjusts to changes in the distance to the subject when **AF-C** is selected during viewfinder photography.




■ ■ **Blocked Shot AF Response**

Choose how quickly focus responds when something passes between the subject and the camera. Choose from values between **5 (Delayed)** and **1 (Quick)**. The higher the value, the slower the response and the less likely you are to lose focus on your original subject. The lower the value, the quicker the response and the easier it is to shift focus to objects crossing your field of view. Note that **2** and **1 (Quick)** are equivalent to **3** when 3D-tracking or auto-area AF is selected for AF-area mode.

■ ■ **Subject Motion**


Select **Steady** for smooth focus when photographing subjects that approach the camera at a steady pace, or **Erratic** for improved response when photographing subjects prone to sudden starts and stops.

a4: 3D-Tracking Face-Detection

MENU button →  Custom Settings menu


Choose whether the camera detects and focuses on faces when 3D-tracking is selected for AF-area mode.

a5: 3D-Tracking Watch Area



MENU button →  Custom Settings menu

In 3D-tracking, the camera tracks subjects that leave the selected focus point and selects new focus points as required while the shutter-release button is pressed halfway. Choose whether 3D-tracking uses data from the surrounding focus points to track subjects that move even slightly from the selected focus point (**Wide**) or tracks the subject based solely on data from the vicinity of the selected point (**Normal**). **Wide** is recommended for fast-moving subjects.


a6: Number of Focus Points

MENU button →  Custom Settings menu

Choose the number of focus points available for manual focus-point selection.

Option	Description	
AF55 55 points	Choose from the 55 focus points shown at right.	
AF15 15 points	Choose from the 15 focus points shown at right. Use for quick focus-point selection.	

a7: Store by Orientation

MENU button →  Custom Settings menu

Choose whether separate focus points can be selected for “wide” (landscape) orientation, for “tall” (portrait) orientation with the camera rotated 90° clockwise, and for “tall” orientation with the camera rotated 90° counterclockwise.

Select **Off** to use the same focus point and AF-area mode regardless of camera orientation.



Camera rotated
90° counter-clockwise



Landscape (wide)
orientation



Camera rotated
90° clockwise

Choose **Focus point** to enable separate focus-point selection, or **Focus point and AF-area mode** to enable separate selection of both the focus point and the AF-area mode.



*Camera rotated
90° counter-clockwise*





*Landscape (wide)
orientation*




*Camera rotated
90° clockwise*



a8: AF Activation

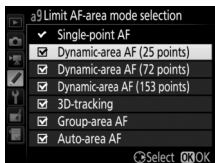
MENU button →  Custom Settings menu

Choose whether the shutter-release button can be used to focus (**Shutter/AF-ON**) or if focus can only be adjusted using the **AF-ON** button or other controls to which AF-ON has been assigned (**AF-ON only**). Highlighting **AF-ON only** and pressing  displays an **Out-of-focus release** option; select **Enable** to allow pictures to be taken without focusing, or **Disable** to prevent the shutter being released before the camera has been focused using the AF-ON control. To take pictures when **Disable** is selected, use the AF-ON control to focus and press the shutter-release button all the way down to release the shutter. Note that **Disable** only applies if **Focus** is selected for Custom Setting a1 (**AF-C priority selection**) or a2 (**AF-S priority selection**) and an option other than auto-area AF is selected for AF-area mode.


a9: Limit AF-Area Mode Selection

MENU button →  Custom Settings menu

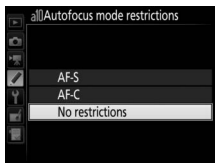
Choose the AF-area modes that can be selected using the AF-mode button and sub-command dial in viewfinder photography (live view is unaffected). Highlight the desired modes and press  to select or deselect. Press  to save changes when settings are complete.




a10: Autofocus Mode Restrictions

MENU button →  Custom Settings menu




Choose the autofocus modes available in viewfinder photography. If only one mode is selected, the autofocus mode can not be chosen using the AF-mode button and main command dial.




a11: Focus Point Wrap-Around

MENU button →  Custom Settings menu













Choose whether focus-point selection “wraps around” from one edge of the viewfinder to another.

Option	Description
Wrap	Focus-point selection “wraps around” from top to bottom, bottom to top, right to left, and left to right, so that, for example, pressing  when a focus point at the right edge of the viewfinder display is highlighted (①) selects the corresponding focus point at the left edge of the display (②). 
No wrap	The focus-point display is bounded by the outermost focus points so that, for example, pressing  when a focus point at the right edge of the display is selected has no effect.


a 12: Focus Point Options

MENU button →  Custom Settings menu

Choose from the following focus point display options.

Option	Description						
Manual focus mode	Choose On to display the active focus point in manual focus mode, Off to display the focus point only during focus point selection.						
Dynamic-area AF assist	Choose On to display both the selected focus point and the surrounding focus points in dynamic-area AF mode.						
Group-area AF display	Choose how the active focus points are displayed in group-area AF. <table border="1"><thead><tr><th>Option</th><th>Focus point display</th></tr></thead><tbody><tr><td></td><td></td></tr><tr><td></td><td></td></tr></tbody></table>	Option	Focus point display				
	Option	Focus point display					
							
							
Focus point illumination	Choose whether the active focus point is highlighted in red in the viewfinder. <ul style="list-style-type: none">• Auto: The selected focus point is automatically highlighted as needed to establish contrast with the background.• On: The selected focus point is always highlighted, regardless of the brightness of the background. Depending on the brightness of the background, the selected focus point may be difficult to see.• Off: The selected focus point is not highlighted.						


a13: Manual Focus Ring in AF Mode

MENU button →  Custom Settings menu

This item is displayed only with lenses that support it. Selecting **Enable** allows the lens focus ring to be used for manual focus when the camera is in autofocus mode. After pressing the shutter-release button halfway to focus, keep the button pressed halfway and adjust focus using the focus ring. To refocus using autofocus, lift your finger from the shutter-release button and then press it halfway again. To prevent the lens focus ring being used for manual focus when the camera is in autofocus mode, select **Disable**.

b: Metering/Exposure

b1: ISO Sensitivity Step Value

MENU button →  Custom Settings menu


Select the increments used when making adjustments to ISO sensitivity. If possible, the current ISO sensitivity setting is maintained when the step value is changed. If the current ISO sensitivity setting is not available at the new step value, ISO sensitivity will be rounded to the nearest available setting.

b2: EV Steps for Exposure Cntrl

MENU button →  Custom Settings menu


Select the increments used when making adjustments to shutter speed, aperture, and bracketing.


b3: Exp./Flash Comp. Step Value



MENU button →  Custom Settings menu

Select the increments used when making adjustments to exposure and flash compensation.

b4: Easy Exposure Compensation

MENU button →  Custom Settings menu

This option controls whether the  button is needed to set exposure compensation. If **On (Auto reset)** or **On** is selected, the 0 at the center of the exposure display will flash even when exposure compensation is set to ± 0 .


Option	Description
On (Auto reset)	Exposure compensation is set by rotating one of the command dials (see note below). The setting selected using the command dial is reset when the camera turns off or the standby timer expires (exposure compensation settings selected using the  button are not reset).
On	As above, except that the exposure compensation value selected using the command dial is not reset when the camera turns off or the standby timer expires.
Off	Exposure compensation is set by pressing the  button and rotating the main command dial.


Change Main/Sub

The dial used to set exposure compensation when **On (Auto reset)** or **On** is selected for Custom Setting b4 (**Easy exposure compensation**) depends on the option selected for Custom Setting f4 (**Customize command dials**) > **Change main/sub** (☞ 111).


		Customize command dials > Change main/sub	
		Off	On
Exposure mode	P	Sub-command dial	Sub-command dial
	S	Sub-command dial	Main command dial
	A	Main command dial	Sub-command dial
	M	N/A	

b5: Matrix Metering

MENU button →  Custom Settings menu


Choose  **Face detection on** to enable face detection when shooting portraits with matrix metering during viewfinder photography.

b6: Center-Weighted Area

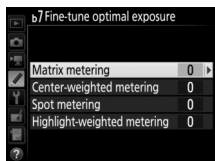
MENU button →  Custom Settings menu

Choose the size of the area given the most weight in center-weighted metering. If a non-CPU lens is attached, the size of the area is fixed at 8 mm.


b7: Fine-Tune Optimal Exposure

MENU button →  Custom Settings menu

Use this option to fine-tune the exposure value selected by the camera. Exposure can be fine-tuned separately for each metering method by from +1 to -1 EV in steps of $\frac{1}{6}$ EV.




Fine-Tuning Exposure



Exposure can be fine-tuned separately for each Custom Settings bank and is not affected by two-button resets. Note that as the exposure compensation () icon is not displayed, the only way to determine how much exposure has been altered is to view the amount in the fine-tuning menu.

c: Timers/AE Lock

c1: Shutter-Release Button AE-L

MENU button →  Custom Settings menu

Choose whether exposure locks when the shutter-release button is pressed.

Option	Description
 ON On (half press)	Pressing the shutter-release button halfway locks exposure.
 ON On (burst mode)	Exposure only locks while the shutter-release button is pressed all the way down.
Off	Pressing the shutter-release button does not lock exposure.

c2: Standby Timer

MENU button →  Custom Settings menu



Choose how long the camera continues to meter exposure when no operations are performed. The shutter-speed and aperture displays in the control panel and viewfinder turn off automatically when the standby timer expires.

Choose a shorter standby timer delay for longer battery life.


c3: Self-Timer

MENU button →  Custom Settings menu

Choose the length of the shutter release delay, the number of shots taken, and the interval between shots in self-timer mode.

- **Self-timer delay:** Choose the length of the shutter-release delay.
- **Number of shots:** Press  and  to choose the number of shots taken each time the shutter-release button is pressed.
- **Interval between shots:** Choose the interval between shots when the **Number of shots** is more than 1.


c4: Monitor off Delay

MENU button →  Custom Settings menu

Choose how long the monitor remains on when no operations are performed during playback (**Playback**; defaults to 10 s) and image review (**Image review**; defaults to 4 s), when menus (**Menus**; defaults to 1 minute) or information (**Information display**; defaults to 10 s) are displayed, or during live view and movie recording (**Live view**; defaults to 10 minutes). Choose a shorter monitor-off delay for longer battery life.

d: Shooting/Display

d1: CL Mode Shooting Speed

MENU button →  Custom Settings menu


Choose the maximum frame advance rate in **CL** (continuous low speed) mode.

d2: Max. Continuous Release

MENU button →  Custom Settings menu

The maximum number of shots that can be taken in a single burst in continuous mode can be set to any value between 1 and 200. Note that regardless of the option selected, there is no limit to the number of photos that can be taken in a single burst when a shutter speed of 4 s or slower is selected in exposure mode **S** or **M**.

The Memory Buffer

Regardless of the option selected for Custom Setting d2, shooting will slow when the memory buffer fills ().

d3: ISO Display

MENU button →  Custom Settings menu

Choose whether the viewfinder and control panel show ISO sensitivity (**Show ISO sensitivity**) or the number of exposures remaining (**Show frame count**).

d4: Sync. Release Mode Options

MENU button →  Custom Settings menu


Choose whether the shutters on the remote cameras are synchronized with the shutter on the master camera when using an optional wireless transmitter or wireless remote controller in synchronized release mode.

d5: Exposure Delay Mode

MENU button →  Custom Settings menu

In situations where the slightest camera movement can blur pictures, select **1 s**, **2 s**, or **3 s** to delay shutter release until one, two, or three seconds after the mirror is raised.

d6: Electronic Front-Curtain Shutter


MENU button →  Custom Settings menu

Select **Enable** to enable the electronic front-curtain shutter in **MUP** mode, eliminating blur caused by shutter motion. A mechanical shutter is used in other release modes.

The Electronic Front-Curtain Shutter

A type G, E, or D lens is recommended; select **Disable** if you notice lines or fog when shooting with other lenses. The fastest shutter speed and maximum ISO sensitivity available with the electronic front-curtain shutter are $\frac{1}{2000}$ s and ISO 51200, respectively.

d7: File Number Sequence

MENU button →  Custom Settings menu

When a picture is taken, the camera names the file by adding one to the last file number used. This option controls whether file numbering continues from the last number used when a new folder is created, the memory card is formatted, or a new memory card is inserted in the camera.

Option	Description
On	When a new folder is created, the memory card formatted, or a new memory card inserted in the camera, file numbering continues from the last number used or from the largest file number in the current folder, whichever is higher. If a photograph is taken when the current folder contains a photograph numbered 9999, a new folder will be created automatically and file numbering will begin again from 0001.
Off	File numbering is reset to 0001 when a new folder is created, the memory card is formatted, or a new memory card is inserted in the camera. Note that a new folder is created automatically if a picture is taken when the current folder contains 999 pictures.
Reset	As for On , except that the next picture taken is assigned a file number by adding one to the largest file number in the current folder. If the folder is empty, file numbering is reset to 0001.

✔ File Number Sequence


If the current folder is numbered 999 and contains either 999 pictures or a photograph numbered 9999, the shutter-release button will be disabled and no further pictures can be taken (in addition, movie recording may be disabled if the current folder is numbered 999 and contains 992 pictures or a file numbered 9992 or higher). Choose **Reset** for Custom Setting d7 (**File number sequence**) and then either format the current memory card or insert a new memory card.


d8: Viewfinder Grid Display

MENU button →  Custom Settings menu

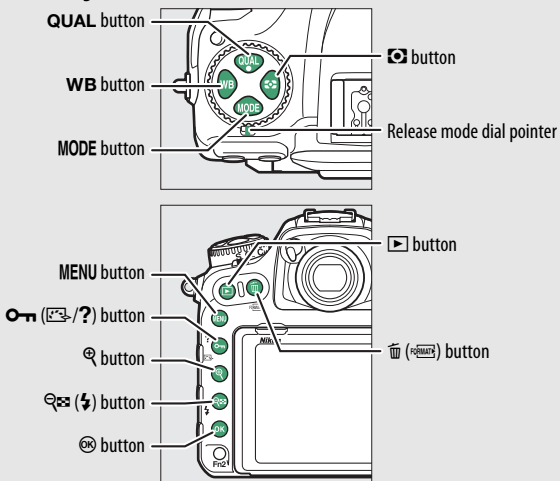
Choose **On** to display on-demand grid lines in the viewfinder for reference when composing photographs.

d9: LCD Illumination


MENU button →  Custom Settings menu

If **Off** is selected, the control panel and button backlights (illuminators) will only light while the power switch is rotated toward . If **On** is selected, the backlights will remain on while the standby timer is active. Regardless of the option selected, the backlights turn off when the shutter-release button is pressed; if **On** is selected, they will come back on when you lift your finger from the shutter-release button. Select **Off** for increased battery life.

Button Backlights




d10: Optical VR

MENU button →  Custom Settings menu

This item is displayed only with lenses that support it. Selecting **On** enables vibration reduction, which takes effect whenever the shutter-release button is pressed halfway. Select **Off** to disable vibration reduction.

e: Bracketing/Flash

e1: Flash Sync Speed

MENU button →  Custom Settings menu

This option controls flash sync speed.

Option	Description
1/250 s (Auto FP)	Auto FP high-speed sync is used when a compatible flash unit is attached. If other flash units are used, shutter speed is set to 1/250 s. When the camera shows a shutter speed of 1/250 s in exposure mode P or A , auto FP high-speed sync will be activated if the actual shutter speed is faster than 1/250 s. If the flash unit supports auto FP high-speed sync, shutter speeds as fast as 1/8000 s can be selected by the camera (modes P and A) or by the user (modes S and M).
1/250 s–1/60 s	Flash sync speed set to selected value.


Fixing Shutter Speed at the Flash Sync Speed Limit

To fix shutter speed at the sync speed limit in shutter-priority auto or manual exposure modes, select the next shutter speed after the slowest possible shutter speed (30 s or -). An X (flash sync indicator) will be displayed in the viewfinder and control panel.

Auto FP High-Speed Sync


Auto FP high-speed sync allows the flash to be used at the highest shutter speed supported by the camera, making it possible to choose the maximum aperture for reduced depth of field even when the subject is backlit in bright sunlight. The information display flash mode indicator shows “FP” when auto FP high-speed sync is active.

e2: Flash Shutter Speed



MENU button →  Custom Settings menu

This option determines the slowest shutter speed available when using front- or rear-curtain sync or red-eye reduction in programmed auto or aperture-priority auto exposure modes (regardless of the setting chosen, shutter speeds can be as slow as 30 s in shutter-priority auto and manual exposure modes or at flash settings of slow sync, slow rear-curtain sync, or red-eye reduction with slow sync).


e3: Exposure Comp. for Flash

MENU button →  Custom Settings menu



Choose how the camera adjusts flash level when exposure compensation is used.

Option	Description
 Entire frame	Both flash level and exposure compensation are adjusted to modify exposure over the entire frame.
 Background only	Exposure compensation applies to background only.

e4: Auto ISO Sensitivity Control

MENU button →  Custom Settings menu

Choose the reference used to set exposure when a flash is used with auto ISO sensitivity control.


Option	Description
 Subject and background	The camera takes both the main subject and background lighting into account when adjusting ISO sensitivity.
 Subject only	ISO sensitivity is adjusted only to ensure that the main subject is correctly exposed.

e5: Modeling Flash





MENU button →  Custom Settings menu



If **On** is selected when the camera is used with an optional flash unit that supports the Nikon Creative Lighting system, a modeling flash will be emitted when the camera **Pv** button is pressed. No modeling flash is emitted if **Off** is selected.

e6: Auto Bracketing (Mode M)


MENU button →  Custom Settings menu



This option determines which settings are affected when **AE & flash** or **AE only** is selected for the **Auto bracketing set** option in the photo shooting menu in manual exposure mode.

Option	Description
 Flash/speed	Camera varies shutter speed (AE only) or shutter speed and flash level (AE & flash).
 Flash/speed/aperture	Camera varies shutter speed and aperture (AE only) or shutter speed, aperture, and flash level (AE & flash).
 Flash/aperture	Camera varies aperture (AE only) or aperture and flash level (AE & flash).
 Flash only	Camera varies flash level only (AE & flash).

Flash bracketing is performed only with i-TTL or  (auto aperture) flash control. If a setting other than **Flash only** is selected and the flash is not used, ISO sensitivity will be fixed at the value for the first shot when auto ISO sensitivity control is on ( 49).


e7: Bracketing Order

MENU button →  Custom Settings menu

At the default setting of **MTR > under > over** () , exposure, flash, and white balance bracketing are performed in the following order: the unmodified shot is taken first, followed by the shot with the lowest value, followed by the shot with the highest value. If **Under > MTR > over** () is selected, shooting will proceed in order from the lowest to the highest value. This setting has no effect on ADL bracketing.

f: Controls

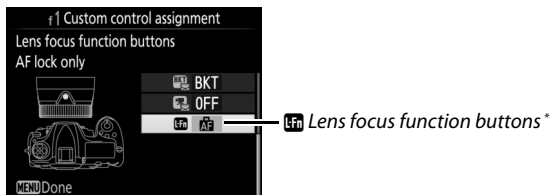
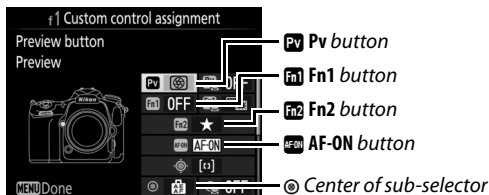
f1: Custom Control Assignment

MENU button →  Custom Settings menu

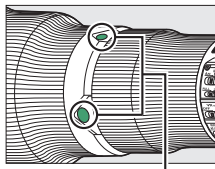
Choose the functions assigned to camera controls, whether used individually or in combination with the command dials.

■ Press

Choose the roles played by the following controls, highlight the desired option and press the center of the multi selector:



* The lens focus function buttons can be used for the assigned function only when **AF-L** is selected with the focus function selector.


























Lens focus function buttons

“Press” and “Press + Command Dials”






Certain roles can not be assigned simultaneously to both the “press” and “press + command” functions for some controls. Assigning such a role to “press” when it is already assigned to “press + command dial” sets the “press + command dial” option **None**, while assigning such a role to “press + command dials” when it is already assigned to “press” sets the “press” option **None**.









The functions that can be assigned to these controls are as follows:








Option	Pv	Fn1	Fn2	AF-ON	Ⓞ	L:Fn
 Preset focus point	✓	✓	—	—	✓	✓
 AF-area mode	✓	✓	—	✓	✓	✓
 AF-area mode + AF-ON	✓	✓	—	✓	✓	✓
 Preview	✓	✓	—	—	✓	—
 FV lock	✓	✓	—	—	✓	—
 AE/AF lock	✓	✓	—	✓	✓	✓
 AE lock only	✓	✓	—	✓	✓	✓
 AE lock (Reset on release)	✓	✓	—	✓	✓	—
 AE lock (Hold)	✓	✓	—	✓	✓	—
 AF lock only	✓	✓	—	✓	✓	✓
 AF-ON	✓	✓	—	✓	✓	✓
 ⚡Disable/enable	✓	✓	—	—	✓	✓
 Bracketing burst	✓	✓	—	—	✓	—
 +RAW + NEF (RAW)	✓	✓	—	—	✓	—











Option	Pv	Fn1	Fn2	AF-ON	⊙	L.Fn
 Matrix metering	✓	✓	—	—	✓	—
 Center-weighted metering	✓	✓	—	—	✓	—
 Spot metering	✓	✓	—	—	✓	—
 Highlight-weighted metering	✓	✓	—	—	✓	—
 Viewfinder grid display	✓	✓	—	—	✓	—
 Viewfinder virtual horizon	✓	✓	—	—	✓	—
 Sync. release selection	✓	✓	—	—	✓	✓
 MY MENU	✓	✓	✓	—	✓	—
 Access top item in MY MENU	✓	✓	✓	—	✓	—
 Playback	✓	✓	—	—	✓	—
 Rating	—	—	✓	—	—	—
RESET Select center focus point	—	—	—	—	✓	—
 Highlight active focus point	—	—	—	—	✓	—
None	✓	✓	✓	✓	✓	—

The following options are available:

Option	Description
PRE ^[*] Preset focus point	Pressing control selects a preset focus point. To choose the point, select it and press the control while pressing the AF-mode button until the focus point flashes. Separate focus points can be selected for “wide” (landscape) orientation and for each of the two “tall” (portrait) orientations if Focus point or Focus point and AF-area mode is selected for Custom Setting a7 (Store by orientation ,  77). If this option is assigned to the lens focus function buttons, you can select the preset focus point by pressing and holding a lens focus function button. Release the button to restore the original focus point selection.
[*] AF-area mode	Highlight this option and press  to select an AF-area mode (3D-tracking excluded). The selected mode will take effect while the control is pressed; releasing the control restores the original AF-area mode.
[*]  AF-area mode + AF-ON	As for AF-area mode , above, except that pressing the control also initiates autofocus.
 Preview	During viewfinder photography, you can preview depth of field while the control is pressed. During live view photography, you can press the control once to open the lens to maximum aperture, making it easier to check focus; pressing the control again restores aperture to its original value.
 FV lock	Press the control to lock flash value for optional flash units. Press again to cancel FV lock.

Option	Description
 AE/AF lock	Focus and exposure lock while the control is pressed.
 AE lock only	Exposure locks while the control is pressed.
 AE lock (Reset on release)	Exposure locks when the control is pressed, and remains locked until the control is pressed a second time, the shutter is released, or the standby timer expires.
 AE lock (Hold)	Exposure locks when the control is pressed, and remains locked until the control is pressed a second time or the standby timer expires.
 AF lock only	Focus locks while the control is pressed.
 AF-ON	Pressing the control initiates autofocus.
 ⚡Disable/enable	If the flash is currently off, front-curtain sync will be selected while the control is pressed. If the flash is currently enabled, it will instead be disabled while the control is pressed.
 Bracketing burst	If the control is pressed while exposure, flash, or ADL bracketing is active in single frame or quiet shutter-release mode, all shots in the current bracketing program will be taken each time the shutter-release button is pressed. If white balance bracketing is active or a continuous release mode (mode CH , CL , or QC) is selected, the camera will repeat the bracketing burst while the shutter-release button is held down.







Option	Description
 + NEF (RAW)	<p>If a JPEG option is currently selected for image quality, “RAW” will be displayed in the control panel and an NEF (RAW) copy will be recorded with the next picture taken after the control is pressed (the original image quality setting will be restored when you remove your finger from the shutter-release button). NEF (RAW) copies are recorded at the settings currently selected for NEF (RAW) recording and Image size > NEF (RAW) in the photo shooting menu (☰ 47, 48). To exit without recording an NEF (RAW) copy, press the control again.</p>
 Matrix metering	<p>Matrix metering is activated while the control is pressed.</p>
 Center-weighted metering	<p>Center-weighted metering is activated while the control is pressed.</p>
 Spot metering	<p>Spot metering is activated while the control is pressed.</p>
 * Highlight-weighted metering	<p>Highlight-weighted metering is activated while the control is pressed.</p>
 Viewfinder grid display	<p>Press the control to turn the framing grid display in the viewfinder on or off.</p>
 Viewfinder virtual horizon	<p>Press the control to view a virtual horizon display in the viewfinder (☰ 104).</p>

Option	Description
 Sync. release selection	<p>When an optional wireless transmitter or wireless remote controller is connected, the control can be used to toggle between remote release and master or synchronized release. The options available depend on the setting chosen for Custom Setting d4 (Sync. release mode options):</p> <ul style="list-style-type: none"> • If Sync is selected, you can choose from Master release only (keep the control pressed to take pictures with the master camera only) and Remote release only (keep the control pressed to take pictures with the remote cameras only). • If No sync is selected, you can choose from Synchronized release (keep the control pressed to synchronize the releases on the master and remote cameras) and Remote release only (keep the control pressed to take pictures with the remote cameras only).
 MY MENU	Pressing the control displays “MY MENU”.
 Access top item in MY MENU	Press the control to jump to the top item in “MY MENU.” Select this option for quick access to a frequently-used menu item.
 Playback	The control performs same function as the  button. Select when using a telephoto lens or in other circumstances in which it is difficult to operate the  button with your left hand.
 Rating	To rate the current picture in playback mode, keep the control pressed and press  or  .
RESET Select center focus point	Press the control to select the center focus point.
 Highlight active focus point	Pressing the control highlights the active focus point.
None	Pressing the control has no effect.


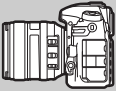




Virtual Horizon

Pressing a control to which **Viewfinder virtual horizon** has been assigned displays pitch and roll indicators in the viewfinder. Press the control a second time to clear the indicators from display.

Roll

Camera tilted right	Camera level	Camera tilted left
		
		

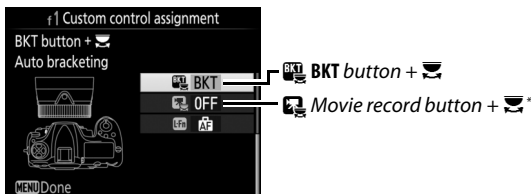
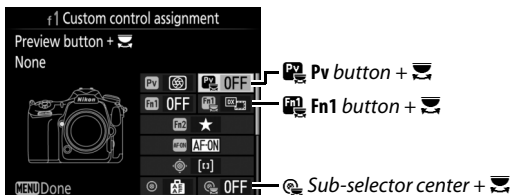
Pitch


Camera tilted forward	Camera level	Camera tilted back
		
		

The roles of the pitch and roll indicators are reversed when the camera is rotated to take pictures in “tall” (portrait) orientation. Note that the display may not be accurate when the camera is tilted at a sharp angle forward or back. If the camera is unable to measure tilt, the amount of tilt will not be displayed.
















■ ■ Press + Command Dials

To choose the roles played by the following controls in combination with the command dials, highlight the desired option and press the center of the multi selector:














* Choose the role played by the movie-record button in combination with the command dials when the live view selector is rotated to .

The functions that can be assigned to these controls are as follows:

Option					
 Choose image area	✓	✓	✓	—	✓
 Shutter spd & aperture lock	✓	✓	✓	—	✓
 1 step spd/aperture	✓	✓	—	—	—
Non-CPU Choose non-CPU lens number	✓	✓	✓	—	—
 Active D-Lighting	✓	✓	—	—	—
 Exposure delay mode	✓	✓	—	—	—
 Photo shooting menu bank	✓	✓	✓	—	✓
 Exposure mode	—	—	—	—	✓
 Auto bracketing	—	—	—	✓	—
 Multiple exposure	—	—	—	✓	—
 HDR (high dynamic range)	—	—	—	✓	—
None	✓	✓	✓	✓	✓

The following options are available:





Option	Description
 Choose image area	Press the control and rotate a command dial to choose from pre-selected image areas (□ 45).
 Shutter spd & aperture lock	Press the control and rotate the main command dial to lock shutter speed in modes S and M ; press the control and rotate the sub-command dial to lock aperture in modes A and M .
 1 step spd/aperture	If the control is pressed when the command dials are rotated, changes to shutter speed (exposure modes S and M) and aperture (exposure modes A and M) are made in increments of 1 EV, regardless of the option selected for Custom Setting b2 (EV steps for exposure cntrl , □ 83).

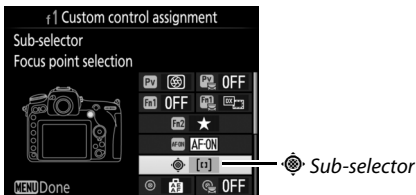
Option	Description
 Choose non-CPU lens number	Press the control and rotate a command dial to choose a lens number specified using the Non-CPU lens data option (□ 132).
 Active D-Lighting	Press the control and rotate the command dials to adjust Active D-Lighting (□ 53).
 Exposure delay mode	Press the control and rotate a command dial to choose an exposure delay mode (□ 89).
 Photo shooting menu bank	Press the control and rotate a command dial to choose the photo shooting menu bank (□ 34).
 Exposure mode	Press the control and rotate the main command dial to choose the exposure mode.
 Auto bracketing	Press the control and rotate the main command dial to choose the number of shots in the bracketing sequence and the sub-command dial to choose the bracketing increment (□ 56).
 Multiple exposure	Press the control and rotate the main command dial to choose the mode and the sub-command dial to choose the number of shots (□ 56).
 HDR (high dynamic range)	Press the control and rotate the main command dial to choose the mode and the sub-command dial to choose the exposure differential (□ 57).
None	No operation is performed when the command dials are rotated while the control is pressed.

The BKT Button


If high dynamic range or multiple exposure is active while another function is assigned to the **BKT** button, the **BKT** button can not be used in combination with a command dial until high dynamic range or multiple exposure photography ends.

■ Sub-Selector

To choose the role assigned to the sub-selector, highlight  **Sub-selector** and press the center of the multi-selector. The sub-selector can be used for focus-point selection ([*] **Focus point selection**) or to duplicate the role performed by the multi-selector (=  **Same as multi selector**). If =  **Same as multi selector** is selected, you can further press  and select **Playback zoom** to choose the role played by the sub-selector during playback zoom: scrolling photos (**Scroll**) or viewing other photos at the same zoom ratio (**Display next/previous frame**).





f2: Multi Selector Center Button

MENU button →  Custom Settings menu





This option determines the role assigned to the center of the multi selector during viewfinder photography, playback, and live view (regardless of the option selected, pressing the center of the multi selector when a movie is displayed full frame starts movie playback).




■ Shooting Mode

Option	Role assigned to center of multi selector
RESET Select center focus point	Select the center focus point.
PRE ^[*] Preset focus point	Pressing the center of the multi selector selects a preset focus point. To choose the point, select it and press the center of the multi selector while pressing the AF-mode button until the focus point flashes. Separate focus points can be selected for “wide” (landscape) orientation and for each of the two “tall” (portrait) orientations if Focus point or Focus point and AF-area mode is selected for Custom Setting a7 (Store by orientation ,  77).
 Highlight active focus point	Pressing the center of the multi selector highlights the active focus point.
None	Pressing the center of the multi selector has no effect in viewfinder photography.


■ Playback Mode

Option	Role assigned to center of multi selector
 Thumbnail on/off	Toggle between full-frame and thumbnail playback.
 View histograms	In both full-frame and thumbnail playback, a histogram is displayed while the center of the multi selector is pressed.
 Zoom on/off	Toggle between full-frame or thumbnail playback and playback zoom. Choose the initial zoom setting from Low magnification (50%) , 1 : 1 (100%) , and High magnification (200%) . The zoom display will center on the active focus point.
 Choose slot and folder	Display the slot and folder selection dialog.

■ Live View


Option	Role assigned to center of multi selector
RESET Select center focus point	Pressing the center of the multi selector in live view selects the center focus point.
 Zoom on/off	Press the center of the multi selector to toggle zoom on and off. Choose the initial zoom setting from Low magnification (50%) , 1 : 1 (100%) , and High magnification (200%) . The zoom display will center on the active focus point.
None	Pressing the center of the multi selector has no effect in live view.

f3: Shutter Spd & Aperture Lock



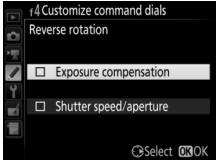
MENU button →  Custom Settings menu

Selecting **On** for **Shutter speed lock** locks shutter speed at the value currently selected in mode **S** or **M**. Selecting **On** for **Aperture lock** locks aperture at the value currently selected in mode **A** or **M**. Shutter speed and aperture lock are not available in mode **P**.

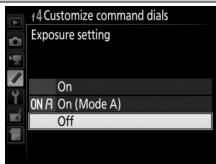
f4: Customize Command Dials



MENU button →  Custom Settings menu

This option controls the operation of the main and sub-command dials.


Option	Description
Reverse rotation	<p>Reverse the direction of rotation of the command dials when they are used to make adjustments to Exposure compensation and/or Shutter speed/aperture. Highlight options and press  to select or deselect, then press .</p> <p>This setting also applies to the command dials for optional MB-D17 battery packs.</p> 

Option	Description
<p>Change main/sub</p>	<ul style="list-style-type: none"> • Exposure setting: If Off is selected, the main command dial controls shutter speed and the sub-command dial controls aperture. If On is selected, the main command dial will control aperture and the sub-command dial shutter speed. If On (Mode A) is selected, the main command dial will be used to set aperture in exposure mode A only. • Autofocus setting: If On is selected, autofocus mode can be selected by keeping the AF-mode button pressed and rotating the sub-command dial, AF-area mode by keeping the AF-mode button pressed and rotating the main command dial. <p>These settings also apply to the command dials for the MB-D17.</p>
<p>Aperture setting</p>	<p>If Sub-command dial is selected, aperture can only be adjusted with the sub-command dial (or with the main command dial if On is selected for Change main/sub > Exposure setting). If Aperture ring is selected, aperture can only be adjusted with the lens aperture ring and the camera aperture display will show aperture in increments of 1 EV (aperture for type G and E lenses is still set using the sub-command dial). Note that regardless of the setting chosen, the aperture ring must be used to adjust aperture when a non-CPU lens is attached.</p>




Option	Description
Menus and playback	<p>If Off is selected, the multi selector is used to choose the picture displayed during full-frame playback, highlight thumbnails, and navigate menus. If On or On (image review excluded) is selected, the main command dial can be used to choose the picture displayed during full-frame playback, move the cursor left or right during thumbnail playback, and move the menu highlight bar up or down. The sub-command dial is used in full-frame playback to skip forward or back according to the option selected for Sub-dial frame advance and in thumbnail playback to page up or down. While menus are displayed, rotating the sub-command dial right displays the sub-menu for the selected option, while rotating it left displays the previous menu. To make a selection, press , the center of the multi selector, or . Select On (image review excluded) to prevent the command dials from being used for playback during image review.</p>
Sub-dial frame advance	<p>When On or On (image review excluded) is selected for Menus and playback, the sub-command dial can be rotated during full-frame playback to select a folder, to skip forward or back 10 or 50 frames at a time, or to skip to the next or previous protected image, photo, or movie.</p>






f5: Multi Selector

MENU button →  Custom Settings menu


If **Restart standby timer** is selected, operating the multi selector when the standby timer expires will activate the meters and start the standby timer. If **Do nothing** is selected, the timer will not start when the multi selector is pressed.



f6: Release Button to Use Dial

MENU button →  Custom Settings menu


Selecting **Yes** allows adjustments that are normally made by holding the , **ISO** ()^{FORMAT}, **MODE**, **BKT**, ,  (⚡), **QUAL**, **WB**, or AF-mode button and rotating a command dial to be made by rotating the command dial after the button is released. This also applies to controls to which **Active D-Lighting** has been assigned as a “press + command dial” option for Custom Setting f1 (**Custom control assignment**,  97). Setting ends when any of the affected buttons is pressed again, the shutter-release button is pressed halfway, or the standby timer expires.



f7: Reverse Indicators

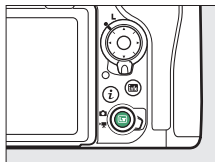
MENU button →  Custom Settings menu

If  (-0+) is selected, the exposure indicators in the control panel, viewfinder, and information display are displayed with negative values on the left and positive values on the right. Select  (+0-) to display positive values on the left and negative values on the right.

f8: Live View Button Options


MENU button →  Custom Settings menu

Select **Disable** to disable the  button, preventing live view from starting accidentally. If **Enable (standby timer active)** is selected, the  button can only be used to start live view while the standby timer is active.




f9: Switch

MENU button →  Custom Settings menu

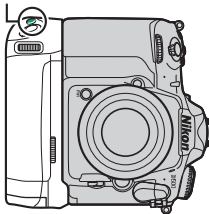
Choose whether rotating the power switch to  activates only the control panel and button backlights or also turns on the information display.

f10: Assign MB-D17 Buttons

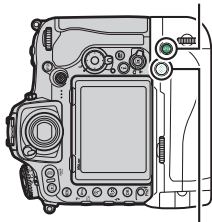
MENU button →  Custom Settings menu

This option is available when an optional MB-D17 multi-power battery pack is attached. Choose the functions assigned to MB-D17 controls, whether used individually or in combination with the command dials.

MB-D17 **Fn** button


















MB-D17 **AF-ON** button



MB-D17 multi selector












Fn button




Choose the function performed by pressing the **Fn** button on the battery pack. See the “Press” section for Custom Setting f1 (**Custom control assignment**) on page 97 for more information.

 Preset focus point	 Spot metering
 Preview	 * Highlight-weighted metering
 FV lock	 Viewfinder grid display
 AE lock (Reset on release)	 Viewfinder virtual horizon
 AE lock (Hold)	 MY MENU
 + NEF (RAW)	 Access top item in MY MENU
 Matrix metering	 Playback
 Center-weighted metering	None

■ ■ Fn button+










Choose the function performed by pressing the **Fn** button on the battery pack and rotating a command dial. See the “Press + Command Dials” section for Custom Setting f1 (**Custom control assignment**) on page 105 for more information.

 Choose image area	 Photo shooting menu bank
 Shutter spd & aperture lock	 ISO sensitivity ¹
 1 step spd/aperture	 Exposure mode ²
 Choose non-CPU lens number	 Exposure compensation ³
 Active D-Lighting	 Metering ⁴
 Exposure delay mode	None

- 1 Performs the same function as the camera **ISO** () button.
- 2 Performs the same function as the camera **MODE** button.
- 3 Performs the same function as the camera  button.
- 4 Performs the same function as the camera  button.

■ ■ AF-ON button

Choose the function performed by pressing the **AF-ON** button on the battery pack. See the “Press” section for Custom Setting f1 (**Custom control assignment**) on page 97 for more information.


 Same as camera AF-ON button [*]	 AE lock only
 AF-ON	 AE lock (Reset on release)
 AF-area mode	 AE lock (Hold)
 AF-area mode + AF-ON	 AF lock only
 AE/AF lock	None


* The control performs the same role as that currently selected for the camera **AF-ON** button.

■ ■ *Multi Selector*

The multi selector on the battery pack can be used for focus-point selection ([¹³] **Focus point selection**) or to duplicate the role performed by the camera multi selector (= ⊕ **Same as camera multi selector**; note that in this case, you can select **Info** ◀▶/**Playback** ▲▼ for **Photo info/playback** to reverse the role of the buttons so that pressing the selector up or down displays additional images and pressing the selector left or right changes the photo information displayed).

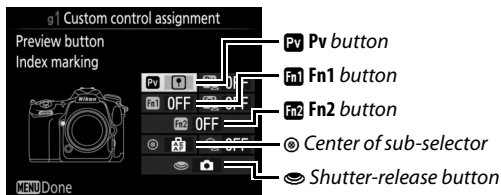
g1: Custom Control Assignment

MENU button →  Custom Settings menu

Choose the functions assigned to camera controls, whether used individually or in combination with the command dials, when the live view selector is rotated to  in live view.

Press













To choose the roles played by the following controls, highlight an option and press the center of the multi selector:





"Press" and "Press + Command Dials"










Certain roles can not be assigned simultaneously to both the "press" and "press + command" functions for some controls. Assigning such a role to "press" when it is already assigned to "press + command dial" sets the "press + command dial" option **None**, while assigning such a role to "press + command dials" when it is already assigned to "press" sets the "press" option **None**.




The functions that can be assigned to these controls are as follows:

Option	Pv	Fn1	Fn2	⊙	☺
 Power aperture (open)	✓	—	—	—	—
 Power aperture (close)	—	✓	—	—	—
 Exposure compensation +	✓	—	—	—	—
 Exposure compensation -	—	✓	—	—	—
 Index marking	✓	✓	✓	✓	—
 View photo shooting info	✓	✓	✓	✓	—
 AE/AF lock	—	—	—	✓	—
 AE lock only	—	—	—	✓	—
 AE lock (Hold)	—	—	—	✓	—
 AF lock only	—	—	—	✓	—
 Take photos	—	—	—	—	✓
 Record movies	—	—	—	—	✓
None	✓	✓	✓	✓	—


The following options are available:

Option	Description
 Power aperture (open)	Aperture widens while the Pv button is pressed. Use in combination with Custom Setting g1 (Custom control assignment) > Fn1 button > Power aperture (close) for button-controlled aperture adjustment.
 Power aperture (close)	Aperture narrows while the Fn1 button is pressed. Use in combination with Custom Setting g1 (Custom control assignment) > Preview button > Power aperture (open) for button-controlled aperture adjustment.

Option	Description
 Exposure compensation +	Exposure compensation increases while the Pv button is pressed. Use in combination with Custom Setting g1 (Custom control assignment) > Fn1 button > Exposure compensation – for button-controlled exposure compensation.
 Exposure compensation –	Exposure compensation decreases while the Fn1 button is pressed. Use in combination with Custom Setting g1 (Custom control assignment) > Preview button > Exposure compensation + for button-controlled exposure compensation.
 Index marking	Press the control during movie recording to add an index at the current position. Indices can be used when viewing and editing movies.
 View photo shooting info	Press the control to display photo shooting data in place of movie recording information. Press again to return to the movie recording display.
 AE/AF lock	Focus and exposure lock while the control is pressed.
 AE lock only	Exposure locks while the control is pressed.
 AE lock (Hold)	Exposure locks when the control is pressed, and remains locked until the control is pressed a second time or the standby timer expires.
 AF lock only	Focus locks while the control is pressed.
 Take photos	Press the shutter-release button all the way down to end movie recording and take a photograph with an aspect ratio of 16 : 9.

Option	Description
 Record movies	Press the shutter-release button halfway to start live view. You can then press the shutter-release button halfway to focus (autofocus mode only) and press it all the way down to start or end recording. The shutter-release button can not be used for other purposes while the live view selector is rotated to  . To end live view, press the  button. The shutter-release button on an optional wireless remote controller or remote cord functions in the same way as the camera shutter-release button.
None	Pressing the control has no effect.

Power Aperture

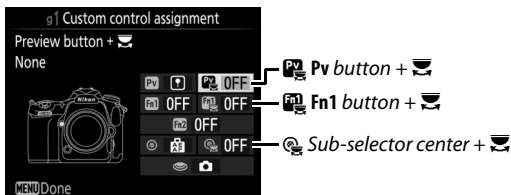
Power aperture is available only in exposure modes **A** and **M** and can not be used while photo shooting info is displayed (a  icon indicates that power aperture can not be used). The display may flicker while aperture is adjusted.

“Record Movies”


When **Record movies** is selected for **Shutter-release button**, interval timer photography is not available.

■ ■ Press + Command Dials

To choose the roles played by the following controls in combination with the command dials, highlight an option and press the center of the multi selector:

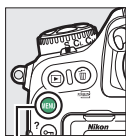


The following functions can be performed by pressing these controls and rotating a command dial:

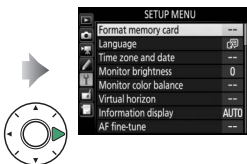
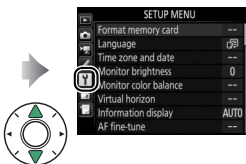
Option	Description
 Choose image area	At a movie frame size of 1920 × 1080, you can press the control and rotate a command dial to select the image area. The image area can not be changed during shooting.
None	No operation is performed when the command dials are rotated while the control is pressed.

Y The Setup Menu: Camera Setup

To display the setup menu, press **MENU** and select the **Y** (setup menu) tab.





MENU button



Option	
Format memory card	125
Language	125
Time zone and date	126
Monitor brightness	127
Monitor color balance	128
Virtual horizon	129
Information display	130
AF fine-tune	131
Non-CPU lens data	132
Clean image sensor	133
Lock mirror up for cleaning*	133
Image Dust Off ref photo	134
Image comment	136
Copyright information	137
IPTC	138
Beep	141

Option	
Touch controls	142
HDMI	142
Location data	143
Wireless remote (WR) options	144
Assign remote (WR) Fn button	145
Airplane mode	145
Connect to smart device	146
Send to smart device (auto)	147
Wi-Fi	147
Bluetooth	148
Network	148
Eye-Fi upload	149
Conformity marking	150
MB-D17 battery type	151
Battery order	152
Battery info	153

Option	
Slot empty release lock	154
Save/load settings	155


Option	
Reset all settings	158
Firmware version	158

* Not available when battery is low.

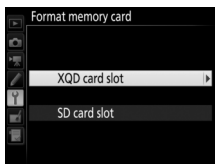
See Also

Menu defaults are listed on page 18.

Format Memory Card

MENU button →  setup menu



To begin formatting, choose a memory card slot and select **Yes**. *Note that formatting permanently deletes all pictures and other data on the card in the selected slot.* Before formatting, be sure to make backup copies as required.




During Formatting

Do not turn the camera off or remove memory cards during formatting.

Two-Button Format


Memory cards can also be formatted by pressing the  (FORMAT) and ISO () buttons for more than two seconds.

Language

MENU button →  setup menu



Choose a language for camera menus and messages.

Time Zone and Date


MENU button →  setup menu



Change time zones, set the camera clock, synchronize the clock with the clock on a smart device, choose the date display order, and turn daylight saving time on or off.

Option	Description
Time zone	Choose a time zone. The camera clock is automatically set to the time in the new time zone.
Date and time	Set the camera clock.
Sync with smart device	Choose whether the camera clock is updated to the time (Coordinated Universal Time, or UTC), time zone, and standard or daylight saving time supplied by the smart device. The camera clock can not be synchronized with the smart device during interval timer photography or if a GPS device is connected with Yes selected for Location data > External GPS device options > Set clock from satellite (☐ 143).
Date format	Choose the order in which the day, month, and year are displayed.
Daylight saving time	Turn daylight saving time on or off. The camera clock will automatically be advanced or set back one hour. The default setting is Off .

If the clock is reset, a  icon will flash in the control panel and a flashing  indicator will appear in the information display.

Monitor Brightness




MENU button →  setup menu

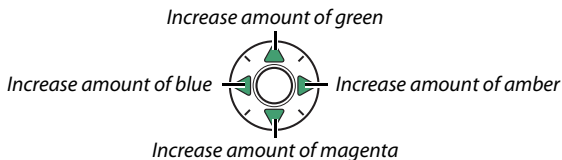
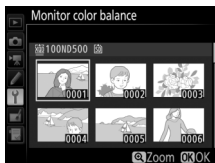
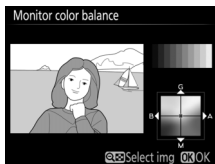
Press  or  to adjust monitor brightness. Choose higher values for increased brightness, lower values for reduced brightness. Brightness can be adjusted separately for:

- **Menus/playback:** Adjust the brightness of the menu, information, and playback displays.
- **Live view:** Adjust the brightness of the live view display.


Monitor Color Balance

MENU button → Y setup menu

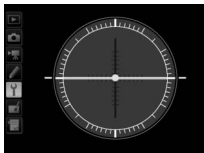
Use the multi selector as shown below to adjust monitor color balance with reference to a sample image. The sample image is the last photograph taken or, in playback mode, the last photograph displayed; to choose a different image, press the  (⚡) button and select an image from a thumbnail list (to view the highlighted image full frame, press and hold ). If the memory card contains no photographs, an empty frame with a gray border will be displayed in place of the sample image. Press  to exit when adjustments are complete. Monitor color balance applies only to menus, playback, and the view through the lens displayed during live view; pictures taken with the camera are not affected.



Virtual Horizon

MENU button →  setup menu

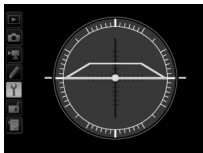
Display roll and pitch information based on information from the camera tilt sensor. If the camera is tilted neither left nor right, the roll reference line will turn green, while if the camera is tilted neither forward nor back, the dot in the center of the display will turn green. Each division is equivalent to 5°.



Camera level



Camera tilted left or right




Camera tilted forward or back


Tilting the Camera

The virtual horizon display is not accurate when the camera is tilted at a sharp angle forward or back. If the camera is unable to measure tilt, the amount of tilt will not be displayed.

See Also

For information on viewing a virtual horizon display in the viewfinder, see Custom Setting f1 (**Custom control assignment**;  97, 104).

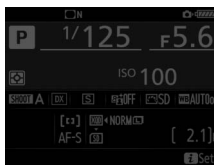
Information Display

MENU button →  setup menu

If **Auto (AUTO)** is selected, the color of the lettering in the information display will automatically change from black to white or white to black to maintain contrast with the background. To always use the same color lettering, select **Manual** and choose **Dark on light (B; black lettering)** or **Light on dark (W; white lettering)**. Monitor brightness will automatically be adjusted for maximum contrast with the selected text color.




Dark on light



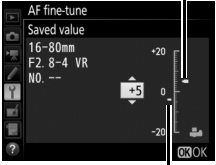





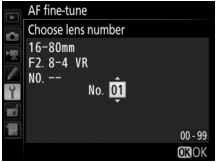


Light on dark

AF Fine-Tune

MENU button →  setup menu

Fine-tune focus for up to 20 lens types. Use only as required; AF tuning is not recommended in most situations and may interfere with normal focus. Auto fine-tuning is available in live view, or fine-tuning can be performed manually using the **Saved value** and **Default** options.

Option	Description
AF fine tune (On/Off)	<ul style="list-style-type: none"> • On: Turn AF tuning on. • Off: Turn AF tuning off.
Saved value	<p>Tune AF for the current lens (CPU lenses only). Press  or  to choose a value between +20 and -20. Values for up to 20 lens types can be stored. Only one value can be stored for each type of lens.</p> <p>Move focal point away from camera. Current value</p> 
Default	<p>Choose the AF tuning value used when no previously saved value exists for the current lens (CPU lenses only).</p> <p>Move focal point toward camera. Previous value</p>
List saved values	<p>List previously saved AF tuning values. To delete a lens from the list, highlight the desired lens and press  (RECALL). To change a lens identifier (for example, to choose an identifier that is the same as the last two digits of the lens serial number to distinguish it from other lenses of the same type in light of the fact that Saved value can be used with only one lens of each type), highlight the desired lens and press . The menu shown at right will be displayed; press  or  to choose an identifier and press  to save changes and exit.</p> 



✓ AF Tuning

The camera may be unable to focus at minimum range or at infinity when AF tuning is applied.

✓ Live View Photography

Tuning is not applied to autofocus during live view photography.


✍ Auto Fine-Tuning

Auto fine-tuning is available in live view. After mounting the camera on a tripod and selecting maximum aperture (recommended), rotating the live view selector to , selecting single-servo autofocus (**AF-S**), setting the AF-area mode to wide- or normal-area AF, selecting the center focus point, and if possible engaging focus zoom for accurate focus, focus the camera and then press the AF mode and movie-record buttons until instructions are displayed (you will need to press the buttons for a little over 2 seconds). Highlight **Yes** and press  to add the new value to the saved values list.

✍ Saved Value

Only one value can be stored for each type of lens. If a teleconverter is used, separate values can be stored for each combination of lens and teleconverter.


Non-CPU Lens Data

MENU button →  setup menu




Record the focal length and maximum aperture of non-CPU lenses, allowing them to be used with functions normally reserved for CPU lenses.

Option	Description
Lens number	Choose a number to identify the lens.
Focal length (mm)	Enter the focal length.
Maximum aperture	Enter the maximum aperture.

Clean Image Sensor

MENU button →  setup menu

Dirt or dust entering the camera when lenses are exchanged or the body cap is removed may adhere to the image sensor and affect your photographs. The **Clean image sensor** option vibrates the sensor to remove dust.


Option	Description
Clean now	Perform image sensor cleaning immediately.
Clean at startup/ shutdown	<ul style="list-style-type: none">•  Clean at startup: The image sensor is automatically cleaned each time the camera is turned on.•  Clean at shutdown: The image sensor is automatically cleaned during shutdown each time the camera is turned off.•  Clean at startup & shutdown: The image sensor is cleaned automatically at startup and at shutdown.• Cleaning off: Automatic image sensor cleaning off.

Lock Mirror up for Cleaning

MENU button →  setup menu

Use this option to lock the mirror up so that dust that can not be removed using **Clean image sensor** can be removed manually as described in the section on manual cleaning in the *User's Manual*. Note, however, that because the image sensor is easily damaged, we recommend that manual cleaning be performed only by a Nikon-authorized service representative.


Image Dust Off Ref Photo

MENU button →  setup menu

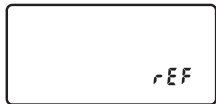
Acquire reference data for the Image Dust Off option in Capture NX-D (for more information, refer to Capture NX-D on-line help). Image Dust Off can not be used with small or medium-sized NEF (RAW) images.

Image Dust Off ref photo is available only when a CPU lens is mounted on the camera. A lens with a focal length of at least 50 mm is recommended. When using a zoom lens, zoom all the way in.

1 Choose a start option.

Highlight one of the following options and press . To exit without acquiring image dust off data, press MENU.

- **Start:** The message shown at right will be displayed and “rEF” will appear in the viewfinder and control panel displays.
- **Clean sensor and then start:** Select this option to clean the image sensor before starting. The message shown at right will be displayed and “rEF” will appear in the viewfinder and control panel displays when cleaning is complete.



2 Frame a featureless white object in the viewfinder.

With the lens about ten centimeters (four inches) from a well-lit, featureless white object, frame the object so that it fills the viewfinder and then press the shutter-release button halfway.

In autofocus mode, focus will automatically be set to infinity; in manual focus mode, set focus to infinity manually.

3 Acquire dust off reference data.

Press the shutter-release button the rest of the way down to acquire Image Dust Off reference data. The monitor turns off when the shutter-release button is pressed.

If the reference object is too bright or too dark, the camera may be unable to acquire Image Dust Off reference data and the message shown at right will be displayed. Choose another reference object and repeat the process from Step 1.



✔ Image Sensor Cleaning

Dust off reference data recorded before image sensor cleaning is performed can not be used with photographs taken after image sensor cleaning is performed. Select **Clean sensor and then start** only if the dust off reference data will not be used with existing photographs.

✔ Image Dust Off Reference Data

The same reference data can be used for photographs taken with different lenses or at different apertures. Reference images can not be viewed using computer imaging software. A grid pattern is displayed when reference images are viewed on the camera.

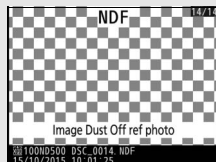



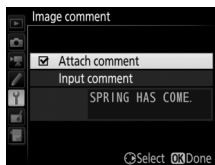


Image Comment

MENU button →  setup menu

Add a comment to new photographs as they are taken. Comments can be viewed as metadata in ViewNX-i or Capture NX-D. The comment is also visible on the shooting data page in the photo information display. The following options are available:



- **Input comment:** Input a comment as described on page 39. Comments can be up to 36 characters long.
- **Attach comment:** Select this option to attach the comment to all subsequent photographs. **Attach comment** can be turned on and off by highlighting it and pressing . After choosing the desired setting, press  to exit.



Copyright Information

MENU button →  setup menu

Add copyright information to new photographs as they are taken. Copyright information is included in the shooting data shown in the photo information display and can be viewed as metadata in ViewNX-i or in Capture NX-D. The following options are available:

- **Artist:** Enter a photographer name as described on page 39. Photographer names can be up to 36 characters long.
- **Copyright:** Enter the name of the copyright holder as described on page 39. Copyright holder names can be up to 54 characters long.
- **Attach copyright information:** Select this option to attach copyright information to all subsequent photographs. **Attach copyright information** can be turned on and off by highlighting it and pressing . After choosing the desired setting, press  to exit.

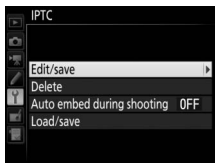


Copyright Information

To prevent unauthorized use of the artist or copyright holder names, make sure that **Attach copyright information** is not selected and that the **Artist** and **Copyright** fields are blank before lending or transferring the camera to another person. Nikon does not accept liability for any damages or disputes arising from the use of the **Copyright information** option.






IPTC presets can be created on the camera and embedded in new photographs as described below. You can also load IPTC presets saved to a memory card using IPTC Preset Manager software, available for free download from:

<http://downloadcenter.nikonimglib.com>



See online help for instructions on using the software.

■ Renaming, Editing, and Copying Presets

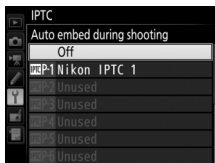
Highlight **Edit/save** and press  to display a list of existing presets. To edit or rename a preset, highlight it and press  (to create a new preset, highlight **Unused** and press ). Select **Rename** to rename the preset or **Edit IPTC information** to select fields and edit their contents as described on page 39. To copy a preset, highlight it in the preset list and press . Highlight the destination and press  and then name the copy as desired. The camera can hold up to 10 presets.

■ Deleting Presets

To delete presets, highlight **Delete** and press .

■ ■ Embedding Presets

To embed a preset in all new photographs, highlight **Auto embed during shooting** and press \odot . A list of preset will be displayed; highlight a preset and press \odot (to disable embedding, select **Off**).



■ ■ Copying Presets to the Camera

To copy ITC presets from a memory card to a selected destination on the camera, select **Load/save**, then highlight **Copy to camera** and press \odot to display a list of the presets on the memory card (if two memory cards are inserted, the camera will list the presets on the card in the primary slot). Highlight a preset and press \odot (to preview the highlighted preset press \odot (⚡), then press \odot after viewing the preset to proceed to the destination list). Highlight a destination and press \odot . The on-screen keyboard will be displayed; name the destination as desired and press \odot to complete the operation. The camera can store up to 10 presets.

■ ■ Copying Preset to a Memory Card

To copy ITC presets from the camera to a memory card, select **Load/save**, then highlight **Copy to card** and press \odot . Select an ITC preset, then highlight the desired destination (1–99) and press \odot to copy the preset to the card. If two memory cards are inserted, the preset will be copied to the card in the primary slot.

IPTC Information


IPTC is a standard established by the International Press Telecommunications Council (IPTC) with the intent of clarifying and simplifying the information required when photographs are shared with a variety of publications. The camera supports standard roman alphanumeric characters only; other characters will not display correctly except on a computer. Preset names (☐ 138) may be up to 18 characters long (if a longer name is created using a computer, all characters after the eighteenth will be deleted); the number of characters that may appear in each field is given below; any characters over the limit will not be displayed.

Field	Maximum length	Field	Maximum length
Caption	2000	Supplemental Categories (Supp. Cat.)	256
Event ID	64	Byline	256
Headline	256	Byline Title	256
Object Name	256	Writer/Editor	256
City	256	Credit	256
State	256	Source	256
Country	256		
Category	3		


Creating IPTC Presets in a Web Browser

When using a WT-7 in HTTP server mode, you can use a web browser to connect to the camera from a computer or smart device (☐ 189). The browser can then be used to create IPTC presets and embed them in photographs.

Beep


MENU button →  setup menu

Choose the pitch and volume of the beep that sounds when the camera focuses using single-servo AF (**AF-S**), when focus locks during live view photography, while the release timer is counting down in self-timer mode, when the shutter-release button is pressed for a second time during mirror-up photography, when time-lapse shooting ends, or the touch-screen is used for keyboard entry (📖 39). Note that regardless of the option selected, a beep will not sound in movie mode or quiet-shutter release modes (modes **Q** and **Qc**). A beep will not sound when the camera focuses using single-servo AF if **Release** is selected for Custom Setting a2 (**AF-S priority selection**, 📖 74).

- **Volume:** Choose **3** (high), **2** (medium), **1** (low) or **Off** (mute). When an option other than **Off** is selected,  appears in the information display.
- **Pitch:** Choose **High** or **Low**.



Touch Controls

MENU button →  setup menu

Adjust monitor touch control settings.


■ ■ *Enable/Disable Touch Controls*

Enable or disable touch controls.

■ ■ *Full-Frame Playback Flicks*


Choose the gesture used to display the next image in full-frame playback: a flick from right to left or a flick from left to right.

HDMI


MENU button →  setup menu

Adjust settings for connection to HDMI devices ( 195).

Location Data

MENU button →  setup menu

Adjust location data settings for use when the camera is connected to a GPS or smart device.

Option	Description
Download from smart device	Select Yes to download location data from the smart device and embed them in pictures taken over the next two hours. If the camera is connected to both a smart device and a GPS unit, location data will be downloaded from the GPS unit. Location data can not be acquired if the camera is off or the standby timer has expired.
Position	This item is only available if the location has been supplied by a GPS or smart device, when it displays the current latitude, longitude, altitude, Coordinated Universal Time (UTC), and heading (if supported) as reported by the device.
External GPS device options	Adjust settings for connection to optional GPS devices. <ul style="list-style-type: none">• Standby timer: Choose whether the standby timer remains active while a GPS device is connected. If Enable is selected, the exposure meters will turn off automatically if no operations are performed for the period specified in Custom Setting c2 (Standby timer,  86), reducing the drain on the battery. If a GP-1 or GP-1A unit is connected, the unit will remain active for a set period after the timer expires; to allow the camera time to acquire location data, the delay is extended by up to one minute after exposure meters are activated or the camera is turned on. Select Disable to disable the standby timer when a GPS device is connected.• Set clock from satellite: Select Yes to synchronize the camera clock with the time reported by the GPS device.

Wireless Remote (WR) Options

MENU button → Y setup menu






Adjust settings for optional WR-R10 wireless remote controllers and for optional radio-controlled flash units that support Advanced Wireless Lighting.

■ LED Lamp

Enable or disable the status LEDs on a WR-R10 wireless remote controller mounted on the camera. For more information, see the documentation supplied with the wireless remote controller.

■ Link Mode

Choose a link mode for WR-R10 wireless remote controllers mounted on other cameras or radio-controlled flash units that support Advanced Wireless lighting. Be sure that the same mode is selected for the other devices.

Option	Description
Pairing	To pair the camera with a WR-R10, mount the WR-R10 on the camera and press the pairing button.
PIN	Connect by entering the device PIN code. Press  or  to highlight digits and press  or  to change, then press  to enter and display the selected PIN.




Regardless of the option selected for **Link mode**, signals from paired wireless remote controllers will always be received by the WR-R10. Users of the WR-1 remote controller will need to select pairing as the WR-1 link mode.











The WR-R10 Wireless Remote Controller

The WR-R10 connects to the camera using a WR-A10 adapter. Be sure the firmware for the WR-R10 has been updated to the latest version. For information on firmware updates, see the Nikon website for your area.

Assign Remote (WR) Fn Button


MENU button →  setup menu

Choose the role played by the **Fn** button on optional wireless remote controllers equipped with an **Fn** button. See the “Press” section for Custom Setting f1 (**Custom control assignment**) on page 97 for more information.

 Preview	 AF-ON
 FV lock	 Disable/enable
 AE/AF lock	 + NEF (RAW)
 AE lock only	 Live view*
 AE lock (Reset on release)	None
 AF lock only	


* Performs the same function as the camera  button.

Airplane Mode


MENU button →  setup menu

Select **Enable** to disable the wireless features of Eye-Fi cards and Bluetooth and Wi-Fi connections to smart devices. Connections to other devices using a wireless transmitter can only be disabled by removing the transmitter from the camera.

Connect to Smart Device

MENU button →  setup menu

Adjust settings for connection to smart devices.


Option	Description
Start	Follow on-screen instructions to connect to the smart device. 
Password protection	Choose a password for smart device connections and turn password protection on or off. For information on typing passwords, see page 39.

Security

Although one of the benefits of this product is that it allows others to freely connect for the wireless exchange of data anywhere within its range, the following may occur if security is not enabled:

- **Data theft:** Malicious third-parties may intercept wireless transmissions to steal user IDs, passwords, and other personal information.
- **Unauthorized access:** Unauthorized users may gain access to the network and alter data or perform other malicious actions. Note that due to the design of wireless networks, specialized attacks may allow unauthorized access even when security is enabled.

Send to Smart Device (Auto)

MENU button →  setup menu

If **On** is selected, new photos will automatically be uploaded to the smart device (if the camera is not currently connected to the smart device, the photos will be marked for upload and uploaded the next time a wireless connection is established). Movies are not uploaded.

Upload Marking

No more than 1000 photos can be marked for upload at a time.

When **Backup** is selected for **Secondary slot function**, only the copy on the card in the primary slot will be marked for upload.

Before changing the rating of photos that are marked for upload, select **Disable** for **Bluetooth > Network connection** or switch wireless off by selecting **Enable** for **Airplane mode**.


Wi-Fi

MENU button →  setup menu

Adjust Wi-Fi (wireless LAN) settings.

Option	Description
Network settings	Adjust settings for Wi-Fi connections.
Current settings	View current Wi-Fi settings.
Reset connection settings	Restore Wi-Fi settings to their default values.


Bluetooth

MENU button →  setup menu

Adjust settings for Bluetooth connections to smart devices.

Option	Description
Network connection	Enable or disable Bluetooth.
Paired devices	View paired devices.
Send while off	Select Off to suspend wireless transmissions when the camera is turned off or the standby timer expires.

Network


MENU button →  setup menu

Adjust settings for connection to computers or ftp servers via wireless or Ethernet networks using an optional WT-7 wireless transmitter (📖 189).

This option is displayed only when an Eye-Fi memory card (available separately from third-party suppliers) is inserted in the camera. Choose **Enable** to upload photographs to a preselected destination. Note that pictures will not be uploaded if signal strength is insufficient. Before uploading pictures via Eye-Fi, select **Disable** for **Airplane mode** (📖 145) and **Bluetooth > Network connection** (📖 148).

Observe all local laws concerning wireless devices and choose **Disable** where wireless devices are prohibited.

✔ Eye-Fi Cards

Eye-Fi cards may emit wireless signals when **Disable** is selected. A  icon displayed when **Disable** is selected indicates that the camera is unable to control the Eye-Fi card (📖 150); turn the camera off and remove the card.








Set Custom Setting c2 (**Standby timer**, 📖 86) to 30 s or more when using an Eye-Fi card.

See the manual provided with the Eye-Fi card, and direct any inquiries to the manufacturer. The camera can be used to turn Eye-Fi cards on and off, but may not support other Eye-Fi functions.

✔ Airplane Mode (📖 145)

Enabling airplane mode disables Eye-Fi upload. To resume Eye-Fi upload, select **Disable** for **Airplane mode** before selecting **Enable** for **Eye-Fi upload**.

When an Eye-Fi card is inserted, its status is indicated by an icon in the information display:


- : Eye-Fi upload disabled.
- : Eye-Fi upload enabled but no pictures available for upload.
-  (static): Eye-Fi upload enabled; waiting to begin upload.
-  (animated): Eye-Fi upload enabled; uploading data.
- : Error — camera can not control Eye-Fi card. If a flashing  appears in the control panel or viewfinder, check that the Eye-Fi card firmware is up-to-date; if the error persists after the card firmware has been updated, insert a different card or format the card in the camera after copying any pictures it contains to a computer or other storage device. If the  indicator is not flashing, pictures can be taken normally but you may be unable to change Eye-Fi settings.



Supported Eye-Fi Cards


Some cards may not be available in some countries or regions; consult the manufacturer for more information. Eye-Fi cards are for use only in the country of purchase. Be sure the Eye-Fi card firmware has been updated to the latest version.

Conformity Marking




MENU button →  setup menu

View a selection of the standards with which the camera complies.

MB-D17 Battery Type






MENU button →  setup menu

To ensure that the camera functions as expected when the optional MB-D17 multi-power battery pack is used with AA batteries, match the option selected in this menu to the type of batteries inserted in the battery pack. There is no need to adjust this option when using EN-EL15 or optional EN-EL18a/EN-EL18 batteries.


Option	Description
 LR6 (AA alkaline)	Select when using LR6 alkaline AA batteries.
 HR6 (AA Ni-MH)	Select when using HR6 Ni-MH AA batteries.
 FR6 (AA lithium)	Select when using FR6 lithium AA batteries.

Using AA Batteries


The capacity of AA batteries drops sharply at temperatures below 20 °C (68 °F) and varies with make and storage conditions; in some cases, batteries may cease to function before their expiry date. Some AA batteries can not be used; due to their performance characteristics and limited capacity, alkaline batteries have less capacity than some other types and should only be used if no alternative is available and then only at warmer temperatures. The camera shows the level of AA batteries as follows:

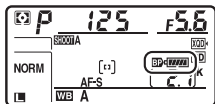
Control panel	Viewfinder	Description
	—	Batteries fully charged.
		Low battery. Ready fresh batteries.
 (flashes)	 (flashes)	Shutter release disabled. Change batteries.

Battery Order


MENU button →  setup menu

Choose whether the battery in the camera or the batteries in the battery pack are used first when an optional MB-D17 multi-power battery pack is attached. Note that if the MB-D17 is powered by an optional AC adapter and power connector, the AC adapter will be used regardless of the option selected.

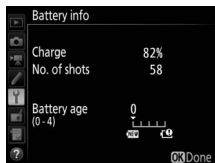
A  icon is displayed in the camera control panel when the batteries in the MB-D17 are in use.






Battery Info

MENU button →  setup menu

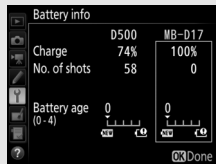
View information on the battery currently inserted in the camera.




Item	Description
Charge	The current battery level expressed as a percentage.
No. of shots	The number of times the shutter has been released with the current battery since the battery was last charged. Note that the camera may sometimes release the shutter without recording a photograph, for example when measuring preset white balance.
Calibration	This item is displayed only when the camera is powered by an optional MB-D17 multi-power battery pack equipped with an EN-EL18a/EN-EL18 (available separately). <ul style="list-style-type: none">•  CAL: Due to repeated use and recharging, calibration is required to ensure that battery level can be measured accurately; recalibrate battery before charging.• —: Calibration not required.
Battery age	A five-level display showing battery age. 0 () indicates that battery performance is unimpaired, 4 () that the battery has reached the end of its charging life and should be replaced. Note that fresh batteries charged at temperatures under about 5 °C (41 °F) may show a temporary drop in charging life; the battery age display will however return to normal once the battery has been recharged at a temperature of about 20 °C (68 °F) or higher.

The MB-D17 Multi-Power Battery Pack

The display for the MB-D17 is shown at right. In the case of EN-EL18a/EN-EL18 batteries, the display shows whether calibration is required. If AA batteries are used, the battery level will be shown by a battery level icon; other items will not be displayed.




Slot Empty Release Lock

MENU button →  setup menu

Selecting **Enable release** allows the shutter to be released when no memory card is inserted, although no pictures will be recorded (they will however be displayed in the monitor in demo mode). If **Release locked** is selected, the shutter-release button is only enabled when a memory card is inserted in the camera.

Save/Load Settings

MENU button →  setup menu

Select **Save settings** to save the following settings to the memory card, or to the memory card in the primary card slot if two memory cards are inserted (if the card is full, an error will be displayed). Use this option to share settings among D500 cameras.

Menu	Option
Playback	Playback display options
	Image review
	After delete
	After burst, show
	Auto image rotation
	Rotate tall
Photo shooting (all banks)	Photo shooting menu bank
	Extended photo menu banks
	File naming
	Primary slot selection
	Secondary slot function
	Flash control
	Choose image area
	Image quality
	Image size
	NEF (RAW) recording
	ISO sensitivity settings

Menu	Option
Photo shooting (all banks)	White balance (with fine-tuning and presets d-1–d-6)
	Set Picture Control (Custom Picture Controls are saved as Standard)
	Color space
	Active D-Lighting
	Long exposure NR
	High ISO NR
	Vignette control
	Auto distortion control
	Flicker reduction
	Auto bracketing set
Movie shooting	File naming
	Destination
	Choose image area
	Frame size/frame rate
	Movie quality
	ISO sensitivity settings
	White balance (with fine-tuning and presets d-1–d-6)
	Set Picture Control (Custom Picture Controls are saved as Standard)
	Active D-Lighting
	High ISO NR
	Flicker reduction
	Microphone sensitivity
	Frequency response
	Wind noise reduction
Electronic VR	


Menu	Option
Custom settings (all banks)	All Custom Settings
	Language
Setup	Time zone and date (excepting Date and time and Sync with smart device)
	Information display
	Non-CPU lens data
	Clean image sensor
	Image comment
	Copyright information
	IPTC
	Beep
	Touch controls
	HDMI
	Location data (excepting the option chosen for Download from smart device)
	Wireless remote (WR) options
	Assign remote (WR) Fn button
	Eye-Fi upload
	MB-D17 battery type
	Battery order
	Slot empty release lock
My Menu/ Recent Settings	All My Menu items
	All recent settings
	Choose tab

Settings saved using the D500 can be restored by selecting **Load settings**. Note that **Save/load settings** is only available when a memory card is inserted in the camera, and that the **Load settings** option is only available if the card contains saved settings.

Saved Settings


Settings are saved in a file with a name beginning with “NCSETUP” and ending with two characters that differ from camera to camera. The camera will not be able to load settings if the file name is changed.

Reset All Settings

MENU button →  setup menu


Reset all settings except **Language** and **Time zone and date** to their default values (📖 10). Copyright information, IPTC presets, and other user-generated entries are also reset. We recommend that you save settings using the **Save/load settings** option in the setup menu before performing a reset (📖 155).

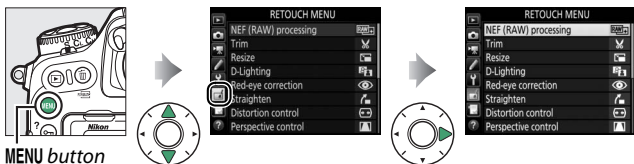
Firmware Version

MENU button →  setup menu









View the current camera firmware version.








The Retouch Menu: Creating Retouched Copies


To display the retouch menu, press **MENU** and select the  (retouch menu) tab.




The options in the retouch menu are used to create trimmed or retouched copies of existing pictures. The retouch menu is only displayed when a memory card containing photographs is inserted in the camera.

Option	
 NEF (RAW) processing	162
 Trim	164
 Resize	165
 D-Lighting	168
 Red-eye correction	169
 Straighten	169
 Distortion control	170

Option	
 Perspective control	171
 Filter effects	172
 Monochrome	173
 Image overlay ¹	174
 Edit movie	177
 Side-by-side comparison ²	177

1 Can only be selected by pressing **MENU** and selecting  tab.

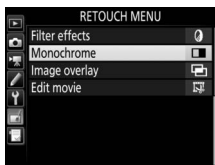
2 Can only be displayed by pressing **i** and selecting **Retouch** or holding **OK** and pressing  in full-frame playback when a retouched image or original is displayed.

Creating Retouched Copies

To create a retouched copy:

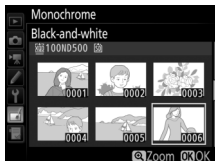
1 Select an item in the retouch menu.

Press or to highlight an item, to select.

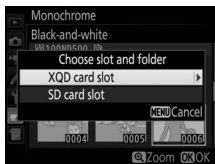


2 Select a picture.

Highlight a picture and press . To view the highlighted picture full screen, press and hold the button.



To view images in other locations, press and select the desired card and folder.




Retouch

In the case of images recorded at image quality settings of NEF + JPEG, only the NEF (RAW) image will be retouched. The camera may not be able to display or retouch images created with other devices.


3 Select retouch options.

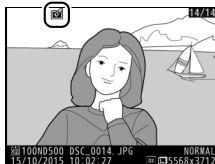
For more information, see the section for the selected item. To exit without creating a retouched copy, press **MENU**.

✔ Monitor off Delay


The monitor will turn off and the operation will be cancelled if no actions are performed for a brief period. Any unsaved changes will be lost. To increase the time the monitor remains on, choose a longer menu display time for Custom Setting c4 (**Monitor off delay**,  87).

4 Create a retouched copy.

Press **OK** to create a retouched copy. Retouched copies are indicated by a  icon.



✔ Retouching the Current Image

To create a retouched copy of the current image, press **i** and select **Retouch**, or hold **OK** and press .

✔ Retouching Copies

Most options can be applied to copies created using other retouch options, although (with the exceptions of **Image overlay** and **Edit movie > Choose start/end point**) each option can be applied only once (note that multiple edits may result in loss of detail). Options that can not be applied to the current image are grayed out and unavailable.

✔ Image Quality and Size


Except in the case of copies created with **Trim** and **Resize**, copies are the same size as the original. Copies created from JPEG images are the same quality as the original, while those created from NEF (RAW) and TIFF (RGB) images are saved in JPEG fine★ format.

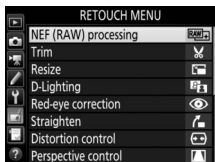
NEF (RAW) Processing

MENU button →  retouch menu



Create JPEG copies of NEF (RAW) photographs.

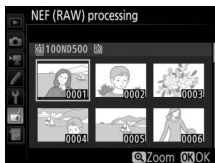
1 Select NEF (RAW) processing.

Highlight **NEF (RAW) processing** in the retouch menu and press  to display a picture selection dialog listing only NEF (RAW) images created with this camera.



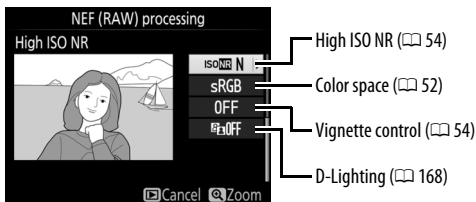
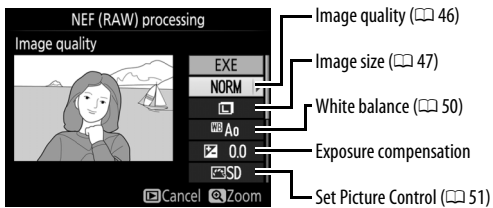
2 Select a photograph.

Use the multi selector to highlight a photograph (to view the highlighted photograph full frame, press and hold the  button). Press  to select the highlighted photograph and proceed to the next step.



3 Choose settings for the JPEG copy.

Adjust the settings listed below. Note that white balance and vignette control are not available with multiple exposures or pictures created with image overlay and that exposure compensation can only be set to values between -2 and $+2$ EV.



4 Copy the photograph.









Highlight **EXE** and press **OK** to create a JPEG copy of the selected photograph. To exit without copying the photograph, press the **MENU** button.



Trim

MENU button →  retouch menu

Create a cropped copy of the selected photograph. The selected photograph is displayed with the selected crop shown in yellow; create a cropped copy as described in the following table.

To	Use	Description
Reduce size of crop		Press  to reduce the size of the crop.
Increase size of crop		Press  to increase the size of the crop.
Change crop aspect ratio		Rotate the main command dial to choose the aspect ratio.
Position crop		Use multi selector to position the crop. Press and hold to move the crop rapidly to the desired position.
Preview crop		Press center of multi selector to preview cropped image.
Create copy		Save the current crop as a separate file.

Trim: Image Quality and Size

Copies created from NEF (RAW), NEF (RAW) + JPEG, or TIFF (RGB) photos have an image quality (📄 46) of JPEG fine★; cropped copies created from JPEG photos have the same image quality as the original. The size of the copy varies with crop size and aspect ratio and appears at upper left in the crop display.



Viewing Cropped Copies


Playback zoom may not be available when cropped copies are displayed.

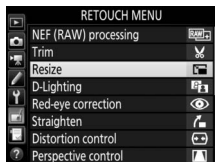
Resize

MENU button →  retouch menu


Create small copies of selected photographs.


1 Select **Resize**.

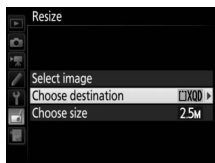
To resize selected images, highlight **Resize** in the retouch menu and press .



2 Choose a destination.


If two memory cards are inserted, you can choose a destination for the resized copies by highlighting **Choose destination** and pressing  (if only one memory card is inserted, proceed to Step 3).

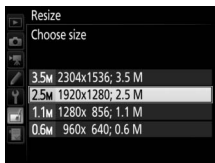
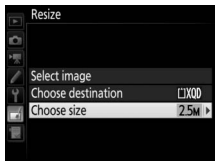
The menu shown at right will be displayed; highlight a card slot and press .



3 Choose a size.





Highlight **Choose size** and press .

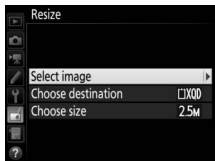
The options shown at right will be displayed; highlight an option and press .



4 Choose pictures.

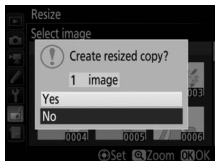
Highlight **Select image** and press .

Highlight pictures and press the center of the multi selector to select or deselect (to view the highlighted picture full screen, press and hold the  button; to view pictures in other locations, press ). Selected pictures are marked by a  icon. Press  when the selection is complete.



5 Save the resized copies.

A confirmation dialog will be displayed. Highlight **Yes** and press **OK** to save the resized copies.



Viewing Resized Copies

Playback zoom may not be available when resized copies are displayed.

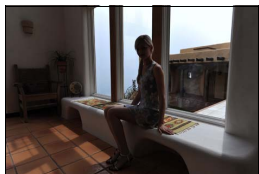
Image Quality

Copies created from NEF (RAW), NEF (RAW) + JPEG, or TIFF (RGB) photos have an image quality (📖 46) of JPEG fine★; copies created from JPEG photos have the same image quality as the original.

D-Lighting

MENU button →  retouch menu




D-Lighting brightens shadows, making it ideal for dark or backlit photographs.

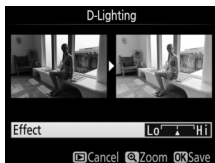


Before



After

Press  or  to choose the amount of correction performed. The effect can be previewed in the edit display. Press  to save the retouched copy.






Red-Eye Correction

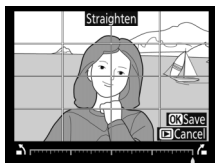
MENU button →  retouch menu

This option is used to correct “red-eye” caused by the flash, and is available only with photographs taken using the flash. Note that red-eye correction may not always produce the expected results and may in very rare circumstances be applied to portions of the image that are not affected by red-eye; check the preview thoroughly before proceeding.

Straighten




MENU button →  retouch menu

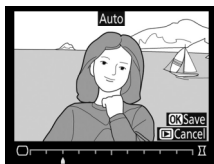
Create a straightened copy of the selected image. Press  to rotate the image clockwise by up to five degrees in increments of approximately 0.25 degrees,  to rotate it counterclockwise (the effect can be previewed in the edit display; note that edges of the image will be trimmed to create a square copy). Press  to save the retouched copy.



Distortion Control

MENU button →  retouch menu

Create copies with reduced peripheral distortion. Select **Auto** to let the camera correct distortion automatically and then make fine adjustments using the multi selector, or select **Manual** to reduce distortion manually (note that **Auto** is not available with photos taken using auto distortion control; see page 55). Press  to reduce barrel distortion,  to reduce pincushion distortion (the effect can be previewed in the edit display; note that greater amounts of distortion control result in more of the edges being cropped out). Press  to save the retouched copy.




Auto

Auto is for use only with pictures taken with type G, E, and D lenses (PC, fisheye, and certain other lenses excluded). Results are not guaranteed with other lenses.

Perspective Control

MENU button →  retouch menu

Create copies that reduce the effects of perspective taken from the base of a tall object. Use the multi selector to adjust perspective (note that greater amounts of perspective control result in more of the edges being cropped out). The results can be previewed in the edit display. Press  to save the retouched copy.



Before




After

Filter Effects

MENU button →  retouch menu

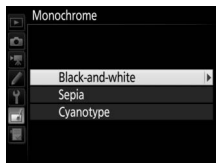
Choose from the following color filter effects. After adjusting filter effects as described below, press **OK** to copy the photograph.

Option	Description
Skylight	Creates the effect of a skylight filter, making the picture less blue. The effect can be previewed in the monitor as shown at right. 
Warm filter	Creates a copy with warm tone filter effects, giving the copy a "warm" red cast. The effect can be previewed in the monitor.

Monochrome

MENU button →  retouch menu

Copy photographs in **Black-and-white**, **Sepia**, or **Cyanotype** (blue and white monochrome).






Selecting **Sepia** or **Cyanotype** displays a preview of the selected image; press  to increase color saturation,  to decrease. Press  to create a monochrome copy.




Image Overlay

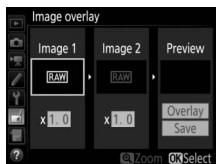
MENU button →  retouch menu

Image overlay combines two existing NEF (RAW) photographs to create a single picture that is saved separately from the originals; the results, which make use of RAW data from the camera image sensor, are noticeably better than photographs combined in an imaging application. The new picture is saved at current image quality and size settings; before creating an overlay, set image quality and size (☰ 46, 47; all options are available). To create a NEF (RAW) copy, choose an image quality of **NEF (RAW)** and an image size of **Large** (the overlay will be saved as a large NEF/RAW image even if **Small** or **Medium** is selected).







1 Select Image overlay.

Highlight **Image overlay** in the retouch menu and press . The dialog shown at right will be displayed, with **Image 1** highlighted; press  to display a picture selection dialog listing only large NEF (RAW) images created with this camera (small and medium NEF/RAW images can not be selected).




2 Select the first image.

Use the multi selector to highlight the first photograph in the overlay. To view the highlighted photograph full frame, press and hold the  button.



To view images in other locations, press  () and select the desired card and folder. Press  to select the highlighted photograph and return to the preview display.



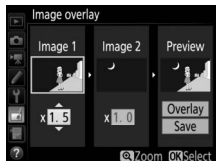
3 Select the second image.

The selected image will appear as **Image 1**. Highlight **Image 2** and press , then select the second photo as described in Step 2.

4 Adjust gain.

Highlight **Image 1** or **Image 2** and optimize exposure for the overlay by pressing  or  to select the gain from values between 0.1 and 2.0.

Repeat for the second image. The default value is 1.0; select 0.5 to halve gain or 2.0 to double it. The effects of gain are visible in the **Preview** column.



5 Preview the overlay.

To preview the composition as shown at right, press \leftarrow or \rightarrow to place the cursor in the **Preview** column, then press \uparrow or \downarrow to highlight **Overlay** and press OK (note that colors and brightness in the preview may differ from the final image). To save the overlay without displaying a preview, select **Save**. To return to Step 4 and select new photos or adjust gain, press Q (\downarrow).



6 Save the overlay.

Press OK while the preview is displayed to save the overlay. After an overlay is created, the resulting image will be displayed full-frame in the monitor.



Image Overlay



Only large NEF (RAW) photographs with the same image area and bit-depth can be combined.

The overlay has the same photo info (including date of recording, metering, shutter speed, aperture, exposure mode, exposure compensation, focal length, and image orientation) and values for white balance and Picture Control as the photograph selected for **Image 1**. The current image comment is appended to the overlay when it is saved; copyright information, however, are not copied. Overlays saved in NEF (RAW) format use the compression selected for **NEF (RAW) compression** in the **NEF (RAW) recording** menu and have the same bit depth as the original images.

Edit Movie




MENU button →  retouch menu

Trim footage to create edited copies of movies or save selected frames as JPEG stills.


Option	Description
 Choose start/end point	Create a copy from which unwanted footage has been removed.
 Save selected frame	Save a selected frame as a JPEG still.

Side-by-Side Comparison

MENU button →  retouch menu




Compare retouched copies to the original photographs. This option is only available if the retouch menu is displayed by displaying a copy or original full frame and then either (a) holding and pressing  and pressing  or (b) pressing  and selecting **Retouch**.

1 Select a picture.

Select a retouched copy (shown by a  icon) or an original that has been retouched.

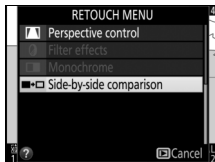


2 Display retouch options.

Press  while pressing and holding the  button, or press  and select **Retouch**.



- 3 Select Side-by-side comparison.**
Highlight **Side-by-side comparison** and press **OK**.



- 4 Compare the copy with the original.**

The source image is displayed on the left, the retouched copy on the right, with the options used to create the copy listed at the top of the display.

Press **Left Arrow** or **Right Arrow** to switch between the source image and the retouched copy.

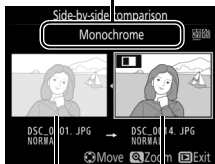
To view the highlighted picture full frame, press and hold the **Q** button. If

the copy was created from two source images using **Image overlay**, or if the

source has been copied multiple times, press **Up Arrow** or **Down Arrow** to view the other source image. To exit to playback, press the **Play**

button, or press **OK** to exit to playback with the highlighted image selected.

Options used to create copy




Source image

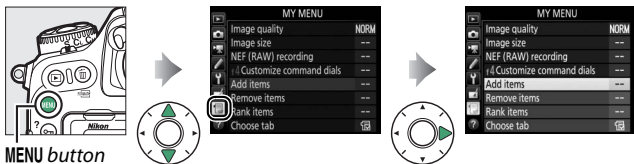
Retouched copy

✔ Side-by-Side Comparison

The source image will not be displayed if the copy was created from a photograph that was protected or has since been deleted or hidden (p. 22).

My Menu/ Recent Settings

To display My Menu, press **MENU** and select the  (My Menu) tab.





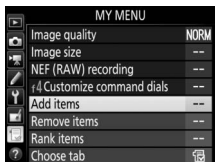
The **MY MENU** option can be used to create and edit a customized list of options from the playback, photo shooting, movie shooting, Custom Settings, setup, and retouch menus for quick access (up to 20 items). If desired, recent settings can be displayed in place of My Menu (183).

Options can be added, deleted, and reordered as described on the following pages.


■ Adding Options to My Menu

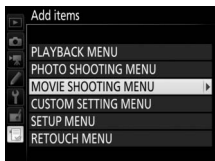
1 Select Add items.

In My Menu () , highlight **Add items** and press .



2 Select a menu.

Highlight the name of the menu containing the option you wish to add and press .



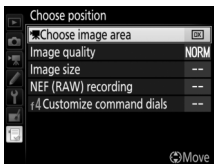
3 Select an item.

Highlight the desired menu item and press **OK**.



4 Position the new item.

Press **▲** or **▼** to move the new item up or down in My Menu. Press **OK** to add the new item.



5 Add more items.

The items currently displayed in My Menu are indicated by a check mark. Items indicated by a icon can not be selected. Repeat steps 1–4 to select additional items.



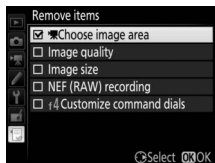
■ Deleting Options from My Menu

1 Select Remove items.

In My Menu (☰), highlight **Remove items** and press (⏎).

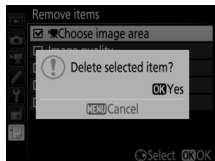
2 Select items.

Highlight items and press (⏎) to select or deselect. Selected items are indicated by a check mark.





3 Delete the selected items.

Press (OK). A confirmation dialog will be displayed; press (OK) again to delete the selected items.



Deleting Items in My Menu

To delete the item currently highlighted in My Menu, press the  (FORMAT) button. A confirmation dialog will be displayed; press  (FORMAT) again to remove the selected item from My Menu.

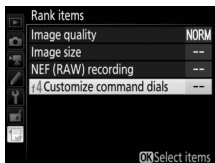
■ Reordering Options in My Menu

1 Select Rank items.

In My Menu (☰), highlight **Rank items** and press **OK**.

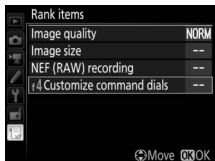
2 Select an item.

Highlight the item you wish to move and press **OK**.



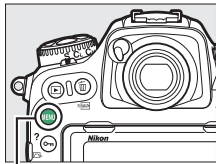
3 Position the item.

Press **▲** or **▼** to move the item up or down in My Menu and press **OK**. Repeat Steps 2–3 to reposition additional items.

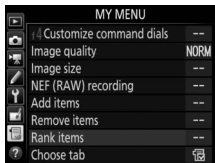


4 Exit to My Menu.

Press the **MENU** button to return to My Menu.



MENU button





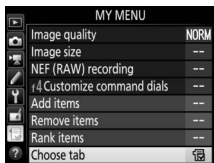
Recent Settings

To display the twenty most recently used settings, select



 **RECENT SETTINGS** for  **MY MENU** > **Choose tab.**

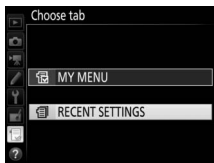
1 Select **Choose tab.**



In My Menu () , highlight **Choose tab** and press .







2 Select **RECENT SETTINGS.**

Highlight  **RECENT SETTINGS** and press . The name of the menu will change from “MY MENU” to “RECENT SETTINGS.”



Menu items will be added to the top of the recent settings menu as they are used. To view My Menu again, select  **MY MENU** for  **RECENT SETTINGS** > **Choose tab.**

Removing Items from the Recent Settings Menu

To remove an item from the recent settings menu, highlight it and press the  () button. A confirmation dialog will be displayed; press  () again to delete the selected item.

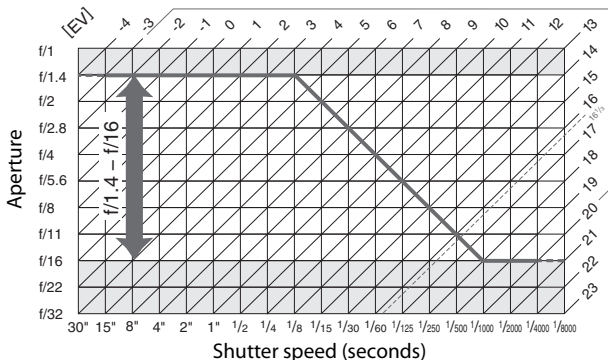
Technical Notes

Read this chapter for information on the camera exposure program, on connecting to other devices, and on compatible accessories.

Exposure Program

The exposure program for programmed auto is shown in the following graph:

— ISO 100; lens with maximum aperture of f/1.4 and minimum aperture of f/16 (e.g., AF-S NIKKOR 50mm f/1.4G)



The maximum and minimum values for EV vary with ISO sensitivity; the above graph assumes an ISO sensitivity of ISO 100 equivalent. When matrix metering is used, values over $16 \frac{1}{3}$ EV are reduced to $16 \frac{1}{3}$ EV.

Connections

Installing ViewNX-i

To fine-tune photos and upload and view pictures, download the latest version of the ViewNX-i installer from the following website and follow the on-screen instructions to complete installation. An Internet connection is required. For system requirements and other information, see the Nikon website for your region.

<http://downloadcenter.nikonimglib.com/>

Capture NX-D

Use Nikon's Capture NX-D software to fine-tune photos or to change settings for NEF (RAW) pictures and save them in other formats.

Capture NX-D is available for download from:

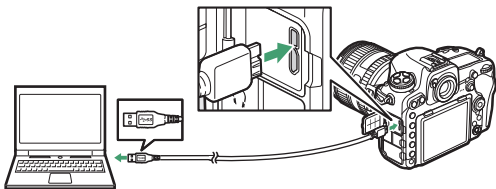
<http://downloadcenter.nikonimglib.com/>

Copying Pictures to the Computer

Before proceeding, be sure you have installed ViewNX-i (📖 185).

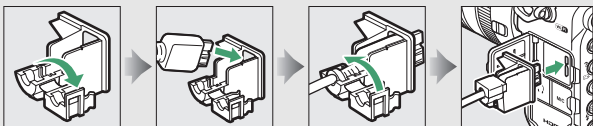
1 Connect the USB cable.

After turning the camera off and ensuring that a memory card is inserted, connect the supplied USB cable as shown and then turn the camera on.



✓ The USB Cable Clip

To prevent cable from being disconnected, attach the supplied clip as shown.



✓ USB Hubs

Connect the camera directly to the computer; do not connect the cable via a USB hub or keyboard.

✓ Use a Reliable Power Source

To ensure that data transfer is not interrupted, be sure the camera battery is fully charged.

✓ Connecting Cables

Be sure the camera is off when connecting or disconnecting interface cables. Do not use force or attempt to insert the connectors at an angle.

2 Start Nikon Transfer 2 component of ViewNX-i.

If a message is displayed prompting you to choose a program, select Nikon Transfer 2.

✔ **During Transfer**


Do not turn the camera off or disconnect the USB cable while transfer is in progress.

✔ **Windows 7**

If the following dialog is displayed, select Nikon Transfer 2 as described below.

1 Under **Import pictures and videos**, click **Change program**. A program selection dialog will be displayed;

select Nikon Transfer 2 and click **OK**.

2 Double-click .



✔ **Windows 10 and Windows 8.1**

Windows 10 and Windows 8.1 may display an AutoPlay prompt when the camera is connected. Tap or click the dialog and then tap or click **Import File/ Nikon Transfer 2** to select Nikon Transfer 2.



✔ **OS X**

If Nikon Transfer 2 does not start automatically, confirm that the camera is connected and then launch Image Capture (an application that comes with OS X) and select Nikon Transfer 2 as the application that opens when the camera is detected.

3 Click **Start Transfer**.

Pictures on the memory card will be copied to the computer.



Start Transfer

4 Terminate the connection.

When transfer is complete, turn the camera off and disconnect the USB cable.

For More Information

Consult online help for more information on using ViewNX-i.

Ethernet and Wireless Networks

When connected to the camera via the supplied USB cable, the optional WT-7 wireless transmitter (□ 198) can be used for connection to computers or ftp servers over wireless or Ethernet networks.

■ ■ Mode Selection

The following modes are available when the camera is connected to a network using an optional WT-7 wireless transmitter:

Mode	Function
FTP upload	Upload existing photos and movies to a computer or ftp server, or upload new photos as they are taken.
Image transfer	
Camera control	Control the camera using optional Camera Control Pro 2 software and save new photos and movies directly to the computer.
HTTP server	View and take pictures remotely using a browser-equipped computer or smart device.
Synchronized release (wireless only)	Synchronize the shutter releases for multiple remote cameras with a master camera.

For information on using optional wireless transmitters, refer to the manuals provided with the device. Be sure to update all related software to the latest versions.

✔ **During Transfer**

Movies can not be recorded or played back in image transfer mode (“image transfer mode” applies when images are being transferred via an Ethernet or wireless network and when images remain to be sent).

✔ **Movies**

Movies can be uploaded in transfer mode if the camera is connected to an Ethernet or a wireless network and **Auto send** or **Send folder** is not selected for **Network > Options**.

✔ **HTTP Server Mode**

The camera can not be used to record or view movies in http server mode.

✔ **Wireless Transmitters**

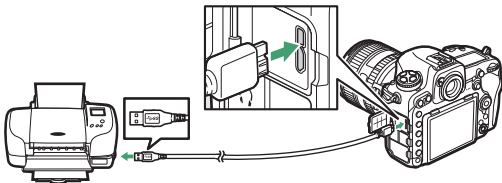
The principal differences between the WT-7 and WT-7A/B/C are in the number of channels supported; unless otherwise stated, all references to the WT-7 also apply to the WT-7A/B/C.

Printing Photographs

Selected JPEG images can be printed on a PictBridge printer connected directly to the camera.

■ ■ **Connecting the Printer**

Connect the camera using the supplied USB cable. Do not use force or attempt to insert the connectors at an angle.



When the camera and printer are turned on, a welcome screen will be displayed in the monitor, followed by a PictBridge playback display.

✓ **Selecting Photographs for Printing**

Images created at image quality settings of NEF (RAW) or TIFF (RGB) (□ 46) can not be selected for printing. JPEG copies of NEF (RAW) images can be created using the **NEF (RAW) processing** option in the retouch menu (□ 162).

✓ **Printing Via Direct USB Connection**










Be sure the battery is fully charged or use an optional AC adapter and power connector. When taking photographs to be printed via direct USB connection, set **Color space** to **sRGB** (□ 52).

✓ **See Also**






See the *User's Manual* for information on what to do if an error occurs during printing.








■ Printing Pictures One at a Time

1 Display the desired picture.

Press  or  to view additional pictures. Press the  button to zoom in on the current frame (press  to exit zoom). To view six pictures at a time, press the  () button. Use the multi selector to highlight pictures, or press the  button to display the highlighted picture full frame. To view images in other locations, press  () when thumbnails are displayed and select the desired card and folder.

2 Adjust printing options.

Press  to display the following items, then press  or  to highlight an item and press  to view options (only options supported by the current printer are listed; to use the default option, select **Printer default**). After selecting an option, press  to return to the printer settings menu.

Option	Description
Page size	Choose a page size.
No. of copies	This option is listed only when pictures are printed one at a time. Press  or  to choose number of copies (maximum 99).
Border	Choose whether to frame photos in white borders.
Print date	Choose whether to print the times and dates of recordings on photos.
Cropping	This option is listed only when pictures are printed one at a time. To exit without cropping, highlight No cropping and press  . To crop the current picture, highlight Crop and press  . A crop selection dialog will be displayed; press  to increase the size of the crop,  () to decrease, and use the multi selector to position the crop. Note that print quality may drop if small crops are printed at large sizes.

3 Start printing.

Select **Start printing** and press **OK** to start printing. To cancel before all copies have been printed, press **OK**.

■ ■ Printing Multiple Pictures

1 Display the PictBridge menu.

Press the **MENU** button in the PictBridge playback display.

2 Choose an option.

Highlight one of the following options and press **▶**.

- **Print select:** Select pictures for printing. Use the multi selector to highlight pictures (to view images in other locations, press **⊞** (**↓**) and select the desired card and folder; to display the current picture full screen, press and hold the **Ⓚ** button) and, keeping the **Ⓚ** (**Ⓚ**/?) button pressed, press **⬆** or **⬇** to choose the number of prints (maximum 99). To deselect a picture, set the number of prints to zero.
 - **Index print:** To create an index print of all JPEG pictures on the memory card, proceed to Step 3. Note that if the memory card contains more than 256 pictures, only the first 256 images will be printed. A warning will be displayed if the page size selected in Step 3 is too small for an index print.
-

3 Adjust printing options.

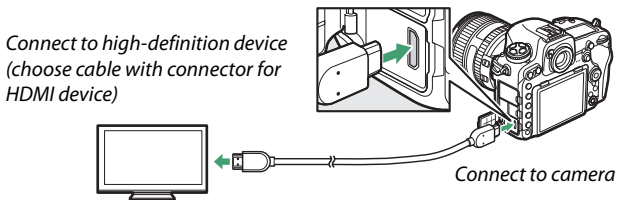
Adjust printer settings as described in Step 2 on page 192.


4 Start printing.

Select **Start printing** and press **OK** to start printing. To cancel before all copies have been printed, press **OK**.

Viewing Photographs on TV

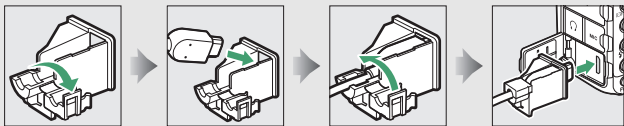
The optional **High-Definition Multimedia Interface (HDMI)** cable (☞ 201) or a type C HDMI cable (available separately from third-party suppliers) can be used to connect the camera to high-definition video devices. Always turn the camera off before connecting or disconnecting an HDMI cable.



Tune the device to the HDMI channel, then turn the camera on and press the  button. During playback, images will be displayed on the television screen. Volume can be adjusted using television controls; the camera controls can not be used.

The HDMI Cable Clip

When using the optional Nikon HDMI cable, attach the supplied clip as shown to prevent accidental disconnection. Do not use cable clips with non-Nikon cables.

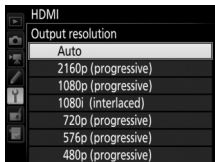


■ ■ HDMI Options

The **HDMI** option in the setup menu (📖 124) controls output resolution and other advanced HDMI options.

Output Resolution

Choose the format for images output to the HDMI device. If **Auto** is selected, the camera will automatically select the appropriate format.



Advanced

Option	Description
Output range	Auto is recommended in most situations. If the camera is unable to determine the correct RGB video signal output range for the HDMI device, you can choose from the following options: <ul style="list-style-type: none">• Limited range: For devices with an RGB video signal input range of 16 to 235. Choose this option if you notice loss of detail in shadows.• Full range: For devices with an RGB video signal input range of 0 to 255. Choose this option if shadows are “washed out” or too bright.
Output display size	Choose horizontal and vertical frame coverage for HDMI output from 95% or 100%.
Live view on-screen display	If Off is selected when the camera is connected to an HDMI device, shooting information will not be displayed in the monitor during live view photography.
Dual monitor	Choose On to mirror the HDMI display on the camera monitor, Off to turn the camera monitor off to save power. Dual monitor turns on automatically when Live view on-screen display is Off .

Television Playback

Use of an AC adapter and power connector (available separately) is recommended for extended playback. If the edges of photographs are not visible in the television display, select **95%** for **HDMI > Advanced > Output display size** (☞ 195).

Slide Shows

The **Slide show** option in the playback menu can be used for automated playback (☞ 30).

HDMI and Live View

When the camera is connected via an HDMI cable, HDMI displays can be used for live view photography and movie recording.

Using Third-Party Recording Devices

The following settings are recommended when using third-party recorders:

- **HDMI > Advanced > Output display size: 100%**
- **HDMI > Advanced > Live view on-screen display: Off**

Other Accessories

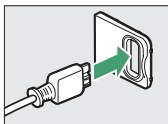
At the time of writing, the following accessories were available for the D500.

Power sources

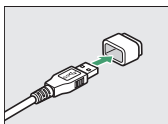
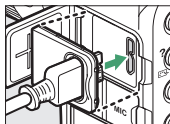
- **Rechargeable Li-ion Battery EN-EL15** (☐ 153): Additional EN-EL15 batteries are available from local retailers and Nikon service representatives.
- **Battery Charger MH-25a**: The MH-25a can be used to recharge EN-EL15 batteries. MH-25 battery chargers can also be used.
- **Multi-Power Battery Pack MB-D17** (☐ 116, 151, 152): The MB-D17 is equipped with a shutter-release button, **Fn** button, **AF-ON** button, multi selector, and main- and sub-command dials for improved operation when taking photographs in portrait (tall) orientation. When attaching the MB-D17, remove the camera MB-D17 contact cover. BL-5 battery-chamber cover and an MH-26a or MH-26 battery charger are required when using EN-EL18a and EN-EL18 batteries.
- **Power Connector EP-5B, AC Adapter EH-5b**: These accessories can be used to power the camera for extended periods (EH-5a and EH-5 AC adapters can also be used). The EP-5B is required to connect the camera to the EH-5b; see page 205 for details. Note that when the camera is used with an MB-D17, the EP-5B must be inserted into the MB-D17, not the camera. Do not attempt to use the camera with power connectors inserted into both the camera and MB-D17.

Filters	<ul style="list-style-type: none">• Filters intended for special-effects photography may interfere with autofocus or the electronic rangefinder.• The D500 can not be used with linear polarizing filters. Use the C-PL or C-PLII circular polarizing filter instead.• Use Neutral Color (NC) filters to protect the lens.• To prevent ghosting, use of a filter is not recommended when the subject is framed against a bright light, or when a bright light source is in the frame.• Center-weighted metering is recommended with filters with exposure factors (filter factors) over 1× (Y44, Y48, Y52, O56, R60, X0, X1, C-PL, ND2S, ND4, ND4S, ND8, ND8S, ND400, A2, A12, B2, B8, B12). See the filter manual for details.
Wireless transmitters (📖 189)	<ul style="list-style-type: none">• Wireless Transmitter WT-7: Use the WT-7 to upload pictures over a wireless network, to control the camera from a computer running Camera Control Pro 2 (available separately), or to take and browse pictures remotely from a computer or smart device. <p>Note: A wireless network and some basic network knowledge is required when using a wireless transmitter. Be sure to update the wireless transmitter software to the latest version.</p>

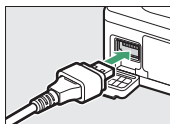
- **USB Cable Gaskets and Connector Covers:** Use a UF-7 connector cover for USB cables and UF3-RU14 USB cable gasket to help prevent accidental disconnections. Before connecting the cable, attach the UF-7 at the camera end and the UF3-RU14 at the end that connects to the wireless transmitter.



UF-7 (attaches to connector for camera)



UF3-RU14 (attaches to connector for WT-7)



Wireless remote controllers
( 144, 145)

- **Wireless Remote Controller WR-R10/WR-T10:** When a WR-R10 wireless remote controller is attached to ten-pin remote terminal using a WR-A10 adapter, the camera can be controlled wirelessly using a WR-T10 wireless remote controller. The WR-R10 can also be used to control radio-controlled flash units.
- **Wireless Remote Controller WR-1:** WR-1 units are used with WR-R10 or WR-T10 wireless remote controllers or with other WR-1 remote controllers, with the WR-1 units functioning as either transmitters or receivers. For example, a WR-1 can be attached to the ten-pin remote terminal and used as a receiver, allowing the shutter to be released remotely by another WR-1 acting as a transmitter.

Note: Be sure the firmware for the WR-R10 and WR-1 has been updated to the latest version. For information on firmware updates, see the Nikon website for your area.

Viewfinder eyepiece accessories

- **Rubber Eyecup DK-19:** The DK-19 makes the image in the viewfinder easier to see, preventing eye fatigue.
- **Dioptric-Adjustment Viewfinder Lens DK-17C:** To accommodate individual differences in vision, viewfinder lenses are available with diopters of -3 , -2 , 0 , $+1$, and $+2$ m^{-1} . Use diopter adjustment lenses only if the desired focus can not be achieved with the built-in diopter adjustment control (-2 to $+1$ m^{-1}). Test diopter adjustment lenses before purchase to ensure that the desired focus can be achieved.
- **Magnifying Eyepiece DK-17M:** The DK-17M magnifies the view through the viewfinder by approximately $1.2\times$ for greater precision when framing.
- **Eyepiece Magnifier DG-2:** The DG-2 magnifies the scene at the center of the viewfinder for more accurate focus. DK-18 eyepiece adapter (available separately) required.

Viewfinder eyepiece accessories	<ul style="list-style-type: none"> • Eyepiece Adapter DK-18: The DK-18 is used when attaching the DG-2 magnifier or DR-3 right-angle viewing attachment to the D500. • Antifog Finder Eyepiece DK-14/Antifog Finder Eyepiece DK-17A: These viewfinder eyepieces prevent fogging in humid or cold conditions. • Fluorine-Coated Finder Eyepiece DK-17F: The protective glass features an easy-to-clean fluorine coating on both surfaces. • Right-Angle Viewing Attachment DR-5/Right-Angle Viewing Attachment DR-4: The DR-5 and DR-4 attach to the viewfinder eyepiece at a right angle, allowing the image in the viewfinder to be viewed from above when the camera is in the horizontal shooting position. The DR-5 supports diopter adjustment and can also magnify the view through the viewfinder by 2 × for greater precision when framing (note that the edges of the frame will not be visible when the view is magnified).
HDMI cables (📖 194)	<p>HDMI Cable HC-E1: An HDMI cable with a type C connector for connection to the camera and a type A connector for connection to HDMI devices.</p>
Software	<p>Camera Control Pro 2: Control the camera remotely from a computer and save photographs directly to the computer hard disk. When Camera Control Pro 2 is used to capture photographs directly to the computer, a PC connection indicator (P C) will appear in the control panel.</p> <p>Note: Use the latest versions of Nikon software; see the Nikon website for your region for the latest information on supported operating systems. At default settings, Nikon Message Center 2 will periodically check for updates to Nikon software and firmware while you are logged in to an account on the computer and the computer is connected to the Internet. A message is automatically displayed when an update is found.</p>

Body caps	Body Cap BF-1B/Body Cap BF-1A: The body cap keeps the mirror, viewfinder screen, and image sensor free of dust when a lens is not in place.
Remote terminal accessories	<p>The D500 is equipped with a ten-pin remote terminal for remote control and automatic photography. The terminal is provided with a cap, which protects the contacts when the terminal is not in use. The following accessories can be used (all lengths are approximate):</p> <ul style="list-style-type: none"> • Remote Cord MC-22/MC-22A: Remote shutter release with blue, yellow, and black terminals for connection to a remote shutter-triggering device, allowing control via sound or electronic signals (length 1 m/3 ft 3 in.). • Remote Cord MC-30/MC-30A: Remote shutter release; can be used to reduce camera shake (length 80 cm/2 ft 7 in.). • Remote Cord MC-36/MC-36A: Remote shutter release; can be used for interval timer photography or to reduce camera shake or keep the shutter open during a time exposure (length 85 cm/2 ft 9 in.). • Extension Cord MC-21/MC-21A: Can be connected to ML-3 or MC-series 20, 22, 22A, 23, 23A, 25, 25A, 30, 30A, 36, or 36A. Only one MC-21 or MC-21A can be used at a time (length 3 m/9 ft 10 in.). • Connecting Cord MC-23/MC-23A: Connects two cameras with ten-pin remote terminals for simultaneous operation (length 40 cm/1 ft 4 in.).

Remote terminal accessories

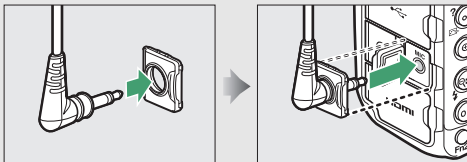
- **Adapter Cord MC-25/MC-25A:** Ten-pin to two-pin adapter cord for connection to devices with two-pin terminals, including the MW-2 radio control set, MT-2 intervalometer, and ML-2 modulite control set (length 20 cm/8 in.).
- **WR Adapter WR-A10:** An adapter used to connect WR-R10 wireless remote controllers to cameras with ten-pin remote terminals.
- **GPS Unit GP-1/GP-1A** (☞ 143): Record latitude, longitude, altitude, and UTC time with pictures.
- **GPS Adapter Cord MC-35** (☞ 143): This 35 cm (1 ft 2 in.) cable connects the camera to older GARMIN eTrex- and geko-series GPS units that conform to version 2.01 or 3.01 of the National Marine Electronics Association NMEA0183 data format. Only models that support PC interface cable connections are supported; the MC-35 can not be used to connect GPS units via USB. The units connect to the MC-35 using a cable with a D-sub 9-pin connector provided by the manufacturer of the GPS device; see the MC-35 instruction manual for details. Before turning the camera on, set the GPS device to NMEA mode (4800 baud); for more information, see the documentation provided with the GPS device.
- **Modulite Remote Control Set ML-3:** Allows infrared remote control at ranges of up to 8 m (26 ft 3 in.).

Microphones	<ul style="list-style-type: none"> • Stereo Microphone ME-1: Connect the ME-1 to the camera microphone jack to record stereo sound and reduce the chance of picking up equipment noise (such as the sounds produced by the lens during autofocus). • Wireless Microphone ME-W1: Use this wireless Bluetooth microphone for off-camera recording. • UF-8 Connector Cover for Stereo Mini-Plug Cables: Prevents accidental disconnection of mini-plug cables for optional ME-1 stereo microphones.
Accessory shoe covers	<p>Accessory Shoe Cover BS-3/ BS-1: A cover protecting the accessory shoe. The accessory shoe is used for optional flash units.</p>

Availability may vary with country or region. See our website or brochures for the latest information.

Connector Covers for Stereo Mini-Plug Cables

The cover attaches as shown.

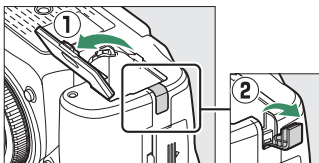


Attaching a Power Connector and AC Adapter

Turn the camera off before attaching an optional power connector and AC adapter.

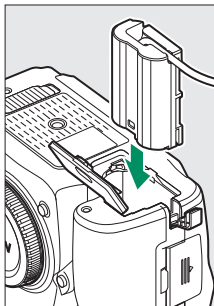
1 Ready the camera.

Open the battery-chamber cover (1) and power connector (2) covers.



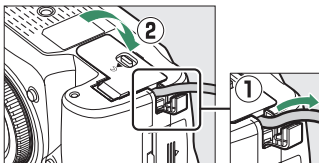
2 Insert the EP-5B power connector.

Be sure to insert the connector in the orientation shown, using the connector to keep the orange battery latch pressed to one side. The latch locks the connector in place when the connector is fully inserted.




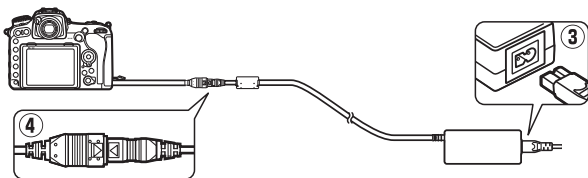
3 Close the battery-chamber cover.

Position the power connector cable so that it passes through the power connector slot and close the battery-chamber cover.



4 Connect the EH-5b AC adapter.

Connect the AC adapter power cable to the AC socket (③) and the power cable to the DC socket (④). A  icon is displayed in the monitor when the camera is powered by the AC adapter and power connector.



No reproduction in any form of this manual, in whole or in part (except for brief quotation in critical articles or reviews), may be made without written authorization from NIKON CORPORATION.

NIKON CORPORATION

© 2016 Nikon Corporation



SB6B01(11)
6MB34611-01